



**California Regional Water Quality Control Board**  
**North Coast Region**  
**Bob Anderson, Chairman**



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Arnold  
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**ORDER NO. R1-2009-0040**  
**NPDES NO. CA0024473**  
**WDID NO. 1A84005ODN**

**WASTE DISCHARGE REQUIREMENTS**  
**FOR THE CRESCENT CITY HARBOR DISTRICT**  
**CRESCENT CITY HARBOR SEAFOOD PROCESSING WASTEWATER SYSTEM**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

**Table 1. Discharger Information**

<b>Discharger</b>	Crescent City Harbor District
<b>Name of Facility</b>	Crescent City Harbor Seafood Processing Wastewater System
<b>Facility Address</b>	141 Starfish Way
	Crescent City CA 95531
	Del Norte County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

The discharge by the Crescent City Harbor District from the discharge point identified below is subject to waste discharge requirements as set forth in this Order:

**Table 2. Discharge Location**

<b>Discharge Point</b>	<b>Effluent Description</b>	<b>Discharge Point Latitude</b>	<b>Discharge Point Longitude</b>	<b>Receiving Water</b>
001	Seafood Processing and Pump Maintenance Wastewater	41° 44' 38" N	124° 12' 38" W	Pacific Ocean

**Table 3. Administrative Information**

This Order was adopted by the Regional Water Quality Control Board on:	<b>July 23, 2009</b>
This Order shall become effective on:	<b>September 11, 2009</b>
This Order shall expire on:	<b>September 11, 2014</b>
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	<b>March 11, 2014</b>

IT IS HEREBY ORDERED, that Order No. R1-2004-0024 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Catherine Kuhlman, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on July 23, 2009.

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Catherine Kuhlman, Executive Officer

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## I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

**Table 4. Facility Information**

<b>Discharger</b>	Crescent City Harbor District
<b>Name of Facility</b>	Crescent City Harbor Seafood Processing Wastewater System
<b>Facility Address</b>	141 Starfish Way
	Crescent City, CA 95531
	Del Norte County
<b>Facility Contact, Title, and Phone</b>	Richard Young, Harbor Master, (707) 464-6174
<b>Mailing Address</b>	101 Citizens Dock Road, Crescent City, CA 95531
<b>Type of Facility</b>	Seafood Processing
<b>Facility Design Flow</b>	0.8 million gallons per day (MGD)

## II. FINDINGS

The California Regional Water Quality Control Board, North Coast Region (hereinafter the Regional Water Board), finds:

- A. **Background.** Crescent City Harbor District (hereinafter the Discharger) is currently discharging pursuant to Order No. R1-2004-0024 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024473. The Discharger submitted a Report of Waste Discharge, dated December 5, 2008, and applied for an NPDES permit renewal to continue the discharge up to 0.8 millions gallons per day (MGD) of treated wastewater from the Crescent City Harbor District's seafood processing wastewater treatment system. Additional information was submitted on March 23, 2009 and April 9, 2009. The application was deemed complete on April 10, 2009.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B. **Facility Description.** The Discharger owns and operates a wastewater treatment facility which serves seafood processors located in the Crescent City Harbor District. At present, the facility serves only the Alber Seafood Company located immediately to the west of the wastewater treatment system. Treatment consists of a rotating self-cleaning screen which was designed to treat up to 800,000 gallons per day (GPD) of seafood processing wastewaters. A 500,000-gallon holding tank is available for flow equalization. When process wastewater is not being treated, up to 1,000 gallons of nonprocess water, which may include nocontact cooling water, boiler water, freshwater, refrigerator condensate and other nonprocess water, may be discharged weekly to

exercise the wastewater pumps. Seafood processing and pump maintenance wastewater are discharged from Discharge Point No. 001 to the Pacific Ocean, a water of the United States, through an outfall shared with the City of Crescent City Wastewater Treatment Facility that provides an initial dilution rate of 20:1. The terminus of the outfall pipe is located in a rocky slot in the surf zone adjacent to the Battery Point Lighthouse. Attachment B provides a map of the area around the facility. Attachment C provides a flow schematic of the facility.

- C. **Legal Authorities.** This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).
- D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through H are also incorporated into this Order.
- E. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the CEQA, Public Resources Code sections 21100-21177.
- F. **Technology-Based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations<sup>1</sup> require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements established in the Effluent Limitations Guidelines and Standards for the Canned and Preserved Seafood Processing Point Source Category at 40 CFR Part 408.

Two subcategories of the Canned and Preserved Seafood Processing Point Source Category apply to the discharge - the Dungeness and Tanner Crab Processing in the Contiguous States Subcategory (40 CFR 408, Subpart H) and the Non-Alaskan Conventional Bottom Fish Processing Subcategory (40 CFR 408, Subpart U). A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

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<sup>1</sup> All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

- G. Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements more stringent than applicable technology-based requirements that are necessary to meet applicable water quality standards. The rationale for these requirements is discussed in the Fact Sheet (Attachment F).

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

- H. Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan for the North Coast Basin* (hereinafter the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies for all waters addressed through the Plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Total dissolved solid concentrations in ocean waters are expected to exceed 3,000 mg/L, and thereby meet an exception to Resolution 88-63. The MUN designation is therefore not applicable to the receiving water for the discharge at Discharge Point 001. Beneficial uses established by the Basin Plan for ocean waters of the Region are described in Table 5, below.

**Table 5. Basin Plan Beneficial Uses**

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	<u>Existing:</u> NAV – Navigation REC1 – Water Contact Recreation REC2 – Non-contact Water Recreation COMM – Commercial and Sport Fishing WILD – Wildlife Habitat RARE – Rare, Threatened, or Endangered Species MAR – Marine Habitat MIGR – Migration of Aquatic Organisms SPWN – Spawning, Reproduction, and/or Early Development SHELL – Shellfish Harvesting AQUA – Aquaculture <u>Potential:</u> IND – Industrial Service Supply PRO – Industrial Process Supply ASBS – Preservation of Areas of Special Biological Significance

Requirements of this Order implement the Basin Plan.

- I. **California Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendments on April 21, 2005 and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below.

**Table 6. Ocean Plan Beneficial Uses**

Discharge Point	Receiving Water	Beneficial Use(s)
001	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish spawning and shellfish harvesting.

In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the Ocean Plan.

- J. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. [40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000)] Under the

revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

- K. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on total suspended solids, oil and grease, and pH for discharges from seafood processing, and total suspended solids, oil and grease, settleable solids, turbidity, and pH for discharges from pump maintenance. Restrictions are discussed in section IV.B of Attachment F (Fact Sheet). This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual WQBELs are based on the Ocean Plan, which was approved by USEPA on February 14, 2006. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

- L. **Antidegradation Policy.** Section 131.12 requires that the State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.
- M. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may



be relaxed. Some effluent limitations from the previous Order have not been retained. As discussed in the Fact Sheet this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

- N. **Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- O. **Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.
- P. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- Q. **Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV. B and C of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- R. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- S. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

### III. DISCHARGE PROHIBITIONS

- A. The discharge of any waste not disclosed by the Discharger or not within the reasonable contemplation of the Regional Water Board is prohibited.
- B. The discharge of untreated waste or partially treated waste (receiving a lower level of treatment than described in Finding II.B of the Order) from anywhere within the collection, treatment or disposal facility, except as provided for bypasses under the conditions of Standard Provisions, Section D of this Order, is prohibited.
- C. The creation of a pollution, contamination, or nuisance as defined by Water Code section 13050 is prohibited.
- D. The discharge of sludge from the holding tank is prohibited.
- E. The discharge of wastewater from shrimp processing is prohibited.

### IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

#### A. Effluent Limitations – Discharge Point No. 001

##### 1. Final Effluent Limitations for Discharges from Seafood Processing – Discharge Point No. 001

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001 when discharging wastes from the processing of Dungeness and tanner crab and bottom fish, with compliance measured at Monitoring Location EFF-001A as described in the attached MRP:

**Table 7. Effluent Limitations – Discharges from Seafood Processing**

Parameter	Units	Effluent Limitations				
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	6-Month Median
Conventional Pollutants						
Total Suspended Solids	lbs/1,000 lbs of seafood processed	1	2	--	--	--
Oil and Grease	lbs/1,000 lbs of seafood processed	3	4	--	--	--
pH	standard units	--	--	6.0	9.0	--
Ocean Plan Table B Pollutants <sup>5</sup>						
Chronic Toxicity	TUc	--	21	--	--	--
Ammonia Nitrogen (as N)	µg/L	--	50,400	--	126,000	12,600

Parameter	Units	Effluent Limitations				
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	6-Month Median
Cadmium	µg/L	--	84	--	210	21
Total Chlorine Residual	µg/L	--	168	--	1,260	42
Copper	µg/L	--	212	--	590	23
Nickel	µg/L	--	420	--	1,050	105
Zinc	µg/L	--	1,520	--	4,040	260
Phenolic Compounds (non-chlorinated) <sup>6</sup>	µg/L	--	2,520	--	6,300	630

<sup>1</sup> The average monthly effluent limitation for total suspended solids, expressed as lbs/1,000 lbs of seafood processed, shall be calculated as follows:

$$\left[ \left( 2.7 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs crab processed during month}}{\text{lbs seafood processed during month}} \right) + \left( 2 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs bottomfish processed during month}}{\text{lbs seafood processed during month}} \right) \right]$$

<sup>2</sup> The maximum daily effluent limitation for total suspended solids, expressed as lbs/1,000 lbs of seafood processed, shall be calculated as follows:

$$\left[ \left( 8.1 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs crab processed during day}}{\text{lbs seafood processed during day}} \right) + \left( 3.6 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs bottomfish processed during day}}{\text{lbs seafood processed during day}} \right) \right]$$

<sup>3</sup> The average monthly effluent limitation for oil and grease, expressed as lbs/1,000 lbs of seafood processed, shall be calculated as follows:

$$\left[ \left( 0.61 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs crab processed during month}}{\text{lbs seafood processed during month}} \right) + \left( 0.55 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs bottomfish processed during month}}{\text{lbs seafood processed during month}} \right) \right]$$

<sup>4</sup> The maximum daily effluent limitation for oil and grease, expressed as lbs/1,000 lbs of seafood processed, shall be calculated as follows:

$$\left[ \left( 1.8 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs crab processed during day}}{\text{lbs seafood processed during day}} \right) + \left( 1.0 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs bottomfish processed during day}}{\text{lbs seafood processed during day}} \right) \right]$$

<sup>5</sup> Effluent limitations for Ocean Plan Table B metals are expressed in terms of total recoverable metal as defined in 40 CFR 136.

<sup>6</sup> Applies to the sum of 2,4-dimethylphenol; 4,6-dinitro-2-methylphenol; 2,4-dinitrophenol; 2-methylphenol; 4-methylphenol; 2-nitrophenol; 4-nitrophenol; and phenol.

- b. Maximum Daily and Instantaneous Maximum mass emission limitations, expressed in pounds per day, for the Ocean Plan Table B pollutants shall be calculated by multiplying 0.00834 times the corresponding concentration-based limitation (µg/L) from the table, above, times the flow (MGD). The 6-month median mass emission limitations shall be determined using the 6-month median effluent concentration (µg/L) and the mean flow rate (MGD) over the 6-month period.

## 2. Final Effluent Limitations for Discharges from Pump Maintenance – Discharge Point No. 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001 when discharging wastes from pump maintenance activity, with compliance measured at Monitoring Location EFF-001B as described in the attached MRP:

**Table 8. Effluent Limitations – Discharges from Pump Maintenance**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	gallons/week	--	--	1,000	--	--
<b>Conventional Pollutants</b>						
Oil and Grease	mg/L	25	40	--	--	75
Total Suspended Solids	mg/L	--	--	60	--	--
pH	standard units	--	--	--	6.0	9.0
<b>Non-Conventional Pollutants</b>						
Settleable Solids	ml/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	225

### B. Land Discharge Specifications *(Not Applicable)*

### C. Reclamation Specifications *(Not Applicable)*

## V. RECEIVING WATER LIMITATIONS

### A. Surface Water Limitations

The following receiving water limitations are based on water quality objectives established by the Ocean Plan and are a required part of this Order. Compliance with the water quality objectives contained in the Ocean Plan shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed.

#### 1. Bacterial Characteristics

- Body Contact Standards. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone designated for water

contact recreation use by the Regional Water Board, but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column.

30-Day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location:

- i. Total coliform density shall not exceed 1,000 per 100 ml;
- ii. Fecal coliform density shall not exceed 200 per 100 mL; and
- iii. Enterococcus density shall not exceed 35 per 100 mL.

Single Sample maximum:

- i. Total coliform density shall not exceed 10,000 per 100 ml;
  - ii. Fecal coliform density shall not exceed 400 per 100 mL;
  - iii. Enterococcus density shall not exceed 104 per 100 mL; and
  - iv. Total coliform density shall not exceed 1,000 per 100 mL when the fecal coliform to total coliform ratio exceeds 0.1.
- b. Shellfish Harvesting. At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacteriological objectives shall be maintained throughout the water column:
- i. The median total coliform density shall not exceed 70 organisms per 100 mLs, and in not more than 10 percent of samples shall coliform density exceed 230 organisms per 100 mL.

## 2. Physical Characteristics

- a. Floating particulates and grease and oil shall not be visible.
- b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
- c. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.
- d. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

## 3. Chemical Characteristics

- a. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygen demanding waste material.

- b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
- c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
- d. The concentration of substances set forth in Chapter IV, Table B of the Ocean Plan in marine sediments shall not be increased to levels that would degrade indigenous biota.
- e. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.
- f. Nutrient levels shall not cause objectionable aquatic growths or degrade indigenous biota.
- g. Discharges shall not cause exceedances of water quality objectives for ocean waters of the State established in Table B of the Ocean Plan.
- h. Discharge of radioactive waste shall not degrade marine life.

#### 4. Biological Characteristics

- a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.
- b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
- c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

#### 5. General Standards

- a. The discharge shall not cause a violation of any applicable water quality standard for the receiving waters adopted by the Regional Water Board or the State Water Board as required by the Clean Water Act and regulations adopted thereunder.
- b. The discharge shall be essentially free of:
  - i. Material that is floatable or will become floatable upon discharge.
  - ii. Settleable material or substances that may form sediments that will degrade benthic communities or other aquatic life.
  - iii. Substances that will accumulate to toxic levels in marine waters, sediments, or biota.
  - iv. Substances that significantly decrease natural light to benthic communities and other marine life.
  - v. Material that results in aesthetically undesirable discoloration of the ocean surface.

- c. Waste effluent shall be discharged in a manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

**B. Groundwater Limitations** (*Not Applicable*)

**VI. PROVISIONS**

**A. Standard Provisions**

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:
  - a. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
  - b. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, interim or final effluent limitation, land discharge specification, reclamation specification, receiving water limitation, or provision of this Order that may result in a significant threat to human health or the environment, such as inundation of treatment components, breach of pond containment, sanitary sewer overflow, irrigation runoff, etc., that results in a discharge to a drainage channel or a surface water, the Discharger shall as soon as possible, but no later than two (2) hours after becoming aware of the discharge, orally<sup>2</sup> notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over the affected water bodies, and the Regional Water Board.
  - c. As soon as possible, but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water, the Discharger shall submit to the Regional Water Board a written certification that the State Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the affected water body have been notified of the discharge. Written documentation of the circumstances of the spill

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<sup>2</sup> Oral reporting means direct contact with a Regional Water Board staff person. The oral report may be given in person or by telephone. After business hours, oral contact must be made by calling the State Office of Emergency Services at (800) 852-7550 or Regional Water Board spill officer at (707) 576-2220.

event shall be submitted to the Regional Water Board within five (5) days, unless the Regional Water Board waives the confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and to prevent recurrence, including, where applicable, a schedule of implementation. Other types of noncompliance require written notification, as described above, at the time of the normal monitoring report.

## **B. Monitoring and Reporting Program (MRP) Requirements**

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

## **C. Special Provisions**

### **1. Reopener Provisions**

- a. Standard Revisions.** If applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, the Regional Water Board may reopen this Order and make modifications in accordance with such revised standards.
- b. Reasonable Potential.** This Order may be reopened for modification to include an effluent limitation, if monitoring establishes that the discharge causes, or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.
- c. Whole Effluent Toxicity.** As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a limitation for a specific toxicant identified in the TRE.
- d. 303(d)-Listed Pollutants.** If an applicable TMDL program is adopted, this Order may be reopened and effluent limitations for the pollutant(s) subject of the TMDL will be modified or imposed to conform this Order to the TMDL requirements. If the Regional Water Board determines that a voluntary offset program is feasible for and desired by the Discharger, then this Order may be reopened to re-evaluate the effluent limitations for the pollutant(s) that are subject of the TMDL and, if appropriate, to incorporate provisions recognizing the Discharger's participation in an offset program.



## 2. Special Studies, Technical Reports and Additional Monitoring Requirements

### a. Toxicity Reduction Requirements

- i. **Whole Effluent Toxicity.** The MRP of this Order requires routine monitoring for whole effluent chronic toxicity at Monitoring Locations EFF-001A and EFF-001B, as described in Table E-1 of the MRP, to determine compliance with the chronic toxicity limitation at EFF-001A, and the Ocean Plan's water quality objective for toxicity, which must be met when discharging seafood processing wastewater and when discharging nonprocess water during pump maintenance activities. As established by the MRP, if the results of whole effluent toxicity tests exceed the chronic toxicity limitation at EFF-001A, or the toxicity water quality objective or "trigger" at EFF-001B, the Discharger shall conduct accelerated toxicity monitoring. Results of accelerated toxicity monitoring will indicate a need to conduct a Toxicity Reduction Evaluation (TRE), if toxicity persists; or it will indicate that a return to routine toxicity monitoring is justified because persistent toxicity has not been identified by accelerated monitoring. TREs shall be conducted in accordance with the TRE workplan prepared by the Discharger pursuant to Section VI.C.2.a.ii. of this Order, below.
- ii. **Toxicity Reduction Evaluations (TRE) workplan.** The Discharger shall prepare and submit to the Regional Water Board Executive Officer a TRE workplan within 180 days of the effective date of this Order. This plan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities. The workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include at least the following items:
  - (a) A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
  - (b) A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices.
  - (c) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).
- iii. **Toxicity Reduction Evaluations (TRE).** The TRE shall be conducted in accordance with the following:
  - (a) The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test, required by Section V of the MRP, if that test result exceeds either the chronic toxicity effluent limitation or the chronic toxicity "trigger."

- (b) The TRE shall be conducted in accordance with the Discharger's workplan.
- (c) The TRE shall be in accordance with current technical guidance and reference material including, at a minimum, the USEPA manual EPA/833B-99/002.
- (d) The TRE may end at any stage if, through monitoring results, it is determined that there is no longer consistent toxicity.
- (e) The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. As guidance, the Discharger shall use the USEPA chronic manual, EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).
- (f) As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with acute or chronic toxicity parameters.
- (g) Many recommended TRE elements may be implemented in tandem with required efforts of source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements of recommendations of such programs may be acceptable to comply with requirements of the TRE.
- (h) The Regional Water Board recognizes that chronic toxicity may be episodic and identification of a reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

### **3. Best Management Practices and Pollution Prevention**

#### **a. Pollutant Minimization Program (PMP)**

The Discharger shall develop and conduct a PMP as further described below when there is evidence that a pollutant is present in the effluent above an effluent limitation and either:

- i. The concentration of the pollutant is reported as "Detected, but Not Quantified" (DNQ) and the effluent limitation is less than the reported Minimum Level (ML);
- ii. The concentration of the pollutant is reported as "Not Detected" (ND) and the effluent limitation is less than the Method Detection Limit (MDL), using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

Examples of evidence may include:

- i. health advisories for fish consumption;
- ii. presence of whole effluent toxicity;
- iii. results of benthic or aquatic organism tissue sampling
- iv. sample results from analytical methods more sensitive than those methods required by this Order; and
- v. sample results reported as DNQ when the effluent limitation is less than the MDL.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board Executive Officer:

- i. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;
- iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;
- iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and
- v. An annual status report that shall be sent to the Regional Water Board including:
  - (a) All PMP monitoring results for the previous year;
  - (b) A list of potential sources of the reportable pollutant(s);
  - (c) A summary of all actions undertaken pursuant to the control strategy; and
  - (d) A description of actions to be taken in the following year.

**b. Best Management Practices (BMP) Plan**

The Discharger shall develop and implement a BMP Plan for discharges from the Facility that prevents the discharge of pollutants into the receiving waters at levels that would contribute to the degradation of the receiving waters or otherwise negatively affect the beneficial uses of the receiving water. At a minimum, the BMP Plan shall be developed and implemented in accordance with Attachment G to prevent, or minimize the potential for, the release of pollutants to waters of the State and waters of the United States.

**4. Construction, Operation and Maintenance Specifications** *(Not Applicable)*

**5. Special Provisions for Municipal Facilities (POTWs Only)** *(Not Applicable)*

**6. Other Special Provisions** *(Not Applicable)*

## **7. Compliance Schedules** *(Not Applicable)*

## **VII. COMPLIANCE DETERMINATION**

Compliance with the effluent limitations contained in Section IV of this Order that are derived from Ocean Plan Table B water quality objectives shall be determined as specified below:

### **A. Compliance with Single-Constituent Effluent Limitations.**

Dischargers are out of compliance with the effluent limitation if the concentration of the pollutant (see Section C, below) in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level.

### **B. Compliance with Effluent Limitations Expressed as a Sum of Several Constituents**

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

### **C. Multiple Sample Data Reduction**

The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported Minimum\* Level). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

## ATTACHMENT A – DEFINITIONS

### Acute Toxicity

#### a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

$$TUa = \frac{100}{\frac{96\text{-hr LC}}{50\%}}$$

#### b. Lethal Concentration 50% (LC 50)

LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log (100 - S)}{1.7}$$

where:

S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

**Arithmetic Mean ( $\mu$ )**, also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

$$\text{Arithmetic mean} = \mu = \Sigma x / n$$

where:  $\Sigma x$  is the sum of the measured ambient water concentrations, and n is the number of samples.

### Areas of Special Biological Significance (ASBS)

Those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

**Average Monthly Effluent Limitation (AMEL):** the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**Average Weekly Effluent Limitation (AWEL):** the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

**Bioaccumulative** pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

**Carcinogenic** pollutants are substances that are known to cause cancer in living organisms.

**Chlordane** shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

**Coefficient of Variation (CV)** is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

#### **Chronic Toxicity**

This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

##### a. Chronic Toxicity (TUc)

Expressed as Toxic Units Chronic (TUc)

$$TUc = \frac{100}{NOEL}$$

##### b. No Observed Effect Level (NOEL)

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix II.

**Daily Discharge:** Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

**DDT** shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

**Degrade**

Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

**Detected, but Not Quantified (DNQ)** are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

**Dichlorobenzenes** shall mean the sum of 1,2- and 1,3-dichlorobenzene.

**Dilution Credit** is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

**Downstream Ocean Waters:** Waters downstream with respect to ocean currents.

**Dredged Material:** Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil".

**Effluent Concentration Allowance (ECA)** is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

**Enclosed Bays** means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not

limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

**Endosulfan:** The sum of endosulfan-alpha and -beta and endosulfan sulfate.

**Estimated Chemical Concentration** is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

**Estuaries** means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

**Halomethanes** shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

**HCH** shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

**Initial Dilution:** The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Board, whichever results in the lower estimate for initial dilution.

**Inland Surface Waters** are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.



**Instantaneous Maximum Effluent Limitation:** the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

**Instantaneous Minimum Effluent Limitation:** the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

**Kelp Beds:** For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera *Macrocystis* and *Nereocystis*. Kelp beds include the total foliage canopy of *Macrocystis* and *Nereocystis* plants throughout the water column.

**Mariculture:** The culture of plants and animals in marine waters independent of any pollution source.

## **Material**

(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial;

(b) For purposes of the Ocean Plan relating to waste disposal, dredging, and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

**Maximum Daily Effluent Limitation (MDEL)** means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

**Median** is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements ( $n$ ) is odd, then the median =  $X_{(n+1)/2}$ . If  $n$  is even, then the median =  $(X_{n/2} + X_{(n/2)+1})/2$  (i.e., the midpoint between the  $n/2$  and  $n/2+1$ ).

**Method Detection Limit (MDL)** is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

**Minimum Level (ML)** is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample

that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

**Mixing Zone** is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

**Natural Light**

Reduction of natural light may be determined by the Regional Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board.

**Not Detected (ND)** are those sample results less than the laboratory's MDL.

**Ocean Waters** are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

**PAHs (polynuclear aromatic hydrocarbons)**

The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

**PCBs (polychlorinated biphenyls)**

The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

**Persistent** pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

**Pollutant Minimization Program (PMP)** means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if

required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

**Pollution Prevention** means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

**Reporting Level (RL)** is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

**Satellite Collection System** is the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

**Shellfish:** Organisms identified by the California Department of Public Health as shellfish for public health purposes (i.e., mussels, clams, and oysters).

**Significant Difference:** Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

**Six-Month Median Effluent Limitation:** The highest allowable moving median of all daily discharges for any 180-day period.

**Source of Drinking Water** is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

**Standard Deviation ( $\sigma$ )** is a measure of variability that is calculated as follows:

$$\sigma = \left( \frac{\sum [(x - \mu)^2]}{(n - 1)} \right)^{0.5}$$

where:

- x is the observed value;
- $\mu$  is the arithmetic mean of the observed values; and
- n is the number of samples.

**State Water Quality Protection Areas (SWQPAs):** Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolution No.s 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

#### **TCDD Equivalents**

The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

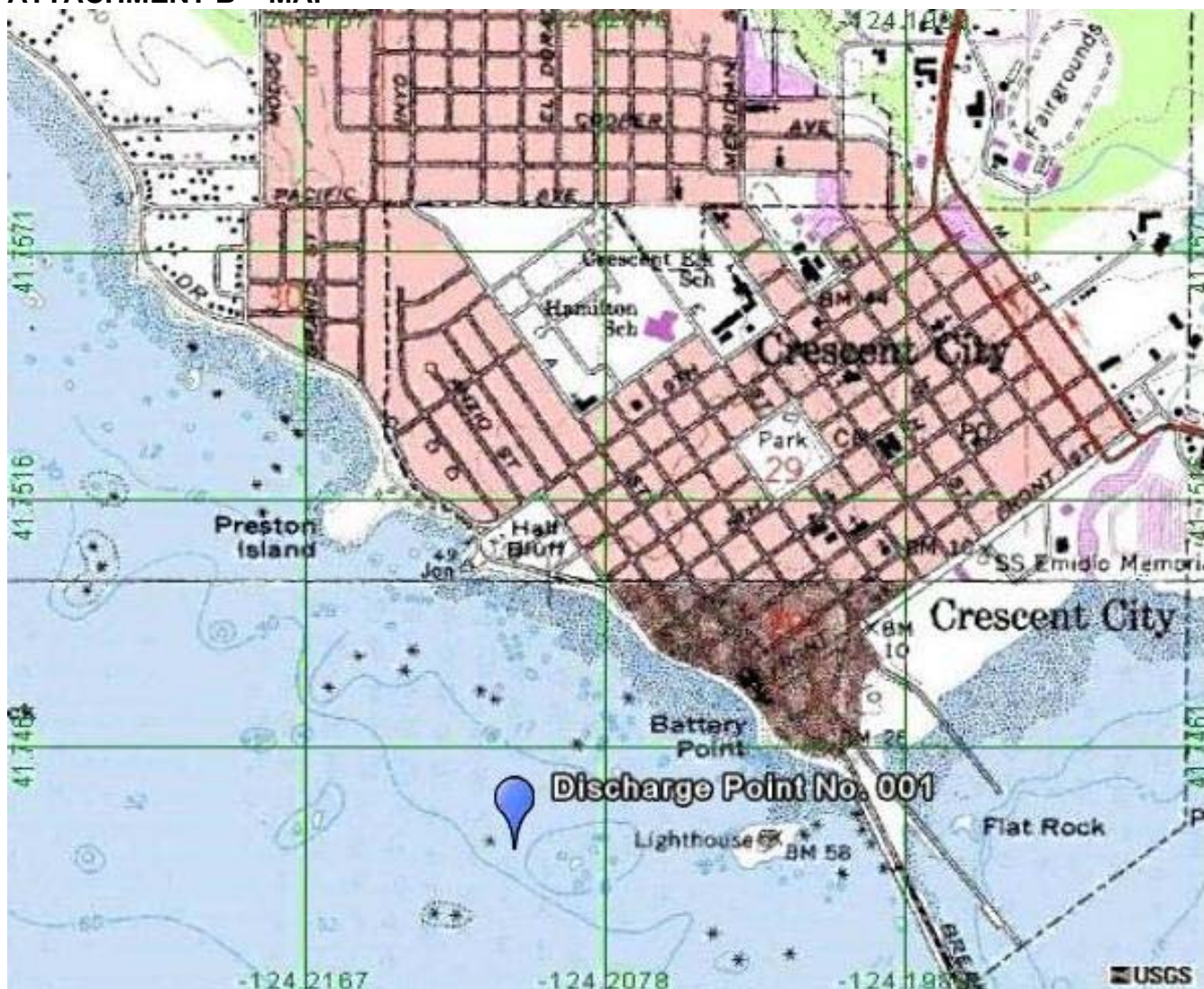
**Toxicity Reduction Evaluation (TRE)** is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity.

The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

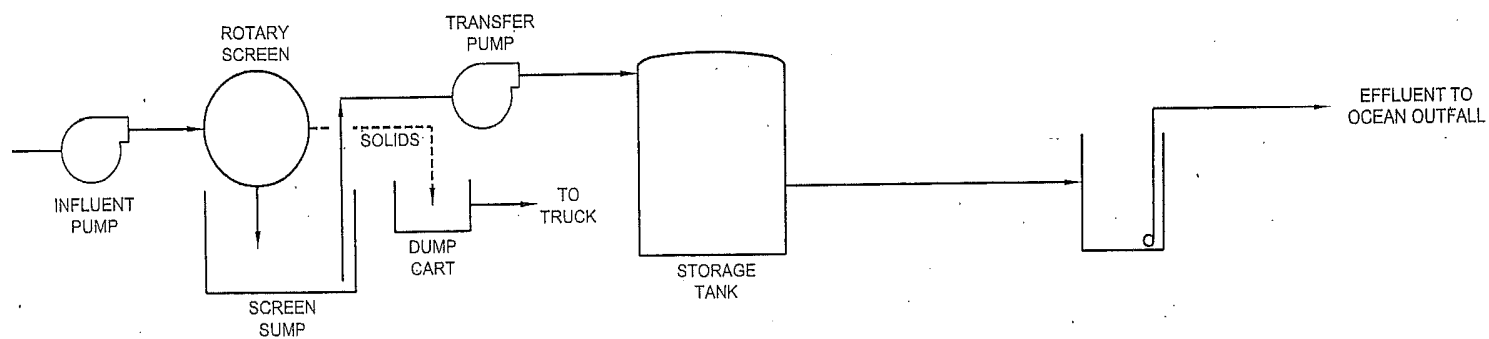
**Waste:** As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

**Water Reclamation:** The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

**ATTACHMENT B – MAP**



## ATTACHMENT C – FLOW SCHEMATIC



## **ATTACHMENT D –STANDARD PROVISIONS**

### **I. STANDARD PROVISIONS – PERMIT COMPLIANCE**

#### **A. Duty to Comply**

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

#### **B. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

#### **C. Duty to Mitigate**

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

#### **D. Proper Operation and Maintenance**

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

#### **E. Property Rights**

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

#### **F. Inspection and Entry**

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

#### **G. Bypass**

1. Definitions
  - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
  - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be



expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
  - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)
5. Notice
  - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)
  - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

## **H. Upset**

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
  - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
  - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
  - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

## **II. STANDARD PROVISIONS – PERMIT ACTION**

### **A. General**

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or

termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

#### **B. Duty to Reapply**

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

#### **C. Transfers**

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

### **III. STANDARD PROVISIONS – MONITORING**

- A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B.** Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

### **IV. STANDARD PROVISIONS – RECORDS**

- A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

#### **B. Records of monitoring information shall include:**

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

**C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):**

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

**V. STANDARD PROVISIONS – REPORTING**

**A. Duty to Provide Information**

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

**B. Signatory and Certification Requirements**

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)
2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more

manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
  - c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those

persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)

### **C. Monitoring Reports**

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

### **D. Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

### **E. Twenty-Four Hour Reporting**

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 2 hours from the time the Discharger becomes aware of the circumstances. Compliance with the 2 hour reporting requirement meets the minimum reporting requirement set forth in section 122.41(l)(6)(i) of title 40 of the code of federal regulations. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it

is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
  - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 2 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

#### **F. Planned Changes**

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

#### **G. Anticipated Noncompliance**

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(l)(2).)

#### **H. Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

#### **I. Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

### **VI. STANDARD PROVISIONS – ENFORCEMENT**

- A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

### **VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS**

#### **A. Non-Municipal Facilities**

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):
  - a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));
  - b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4, 6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
  - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or



- d. The level established by the Regional Water Board in accordance with 40 CFR Section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)
2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):
- a. 500 micrograms per liter ( $\mu\text{g/L}$ ) (40 C.F.R. § 122.42(a)(2)(i));
  - b. 1 milligram per liter ( $\text{mg/L}$ ) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
  - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
  - d. The level established by the Regional Water Board in accordance with 40 CFR Section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

## ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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## ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

### I. GENERAL MONITORING PROVISIONS

- A. Wastewater Monitoring Provision. Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour.
- B. If the Discharger monitors any pollutant more frequently than required by this Order, using test procedures approved by 40 CFR Part 136 or as specified in this Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the monthly and annual discharger monitoring reports.
- C. Laboratories analyzing monitoring samples shall be certified by the California Department of Public Health, in accordance with the provisions of Water Code section 13176, and must include quality assurance / quality control data with their analytical reports.

### II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

**Table E-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001A	Treated seafood processing wastewater at a point following all treatment and prior to contact with the receiving water or with discharges from the City's municipal wastewater treatment facility
001	EFF-001B	Pump maintenance wastewater at a point following all treatment and prior to contact with the receiving water or with discharges from the City of Crescent City's municipal wastewater treatment facility
--	RSW-001	Pacific Ocean at Preston Island outside the zone of dilution
--	RSW-002	Pacific Ocean at Lighthouse Island immediately outside the zone of initial dilution

### III. INFLUENT MONITORING REQUIREMENTS *(Not Applicable)*

### IV. EFFLUENT MONITORING REQUIREMENTS

#### A. Monitoring Location EFF-001A

1. The Discharger shall monitor seafood processing wastewater at Monitoring Location EFF-001A as follows.

**Table E-2. Effluent Monitoring Requirements – EFF-001A**

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>1</sup>	Required Analytical Test Method and Minimum Level
Flow	MGD	Meter	Continuous	--
<b>Conventional Pollutants</b>				
Total Suspended Solids	mg/L	Composite <sup>2</sup>	1/Week	40 CFR Part 136
	lbs/1,000 lbs of seafood processed	Calculate <sup>3</sup>	1/Week	--
Oil and Grease	mg/L	Composite <sup>2</sup>	1/Week	40 CFR Part 136
	lbs/1,000 lbs of seafood processed	Calculate <sup>3</sup>	1/Week	--
pH	standard units	Grab	1/Day	40 CFR Part 136
<b>Ocean Plan Table B Pollutants</b>				
Ammonia Nitrogen, Total (as N)	µg/L	Grab	1/Week	40 CFR Part 136
	lbs/day	Calculate	1/Week	--
Cadmium, Total Recoverable	µg/L	Composite <sup>2</sup>	1/Month	40 CFR Part 136 <sup>4</sup>
	lbs/day	Calculate	1/Month	--
Chlorine, Total Residual	µg/L	Grab	1/Day	40 CFR Part 136
	lbs/day	Calculate	1/Day	--
Copper, Total Recoverable	µg/L	Composite <sup>2</sup>	1/Month	40 CFR Part 136 <sup>4</sup>
	lbs/day	Calculate	1/Month	--
Nickel, Total Recoverable	µg/L	Composite <sup>2</sup>	1/Month	40 CFR Part 136 <sup>4</sup>
	lbs/day	Calculate	1/Month	--
Phenolic Compounds (non-chlorinated) <sup>5</sup>	µg/L	Composite <sup>2</sup>	1/Month	40 CFR Part 136 <sup>4</sup>
	lbs/day	Calculate	1/Month	--
Zinc, Total Recoverable	µg/L	Composite <sup>2</sup>	1/Month	40 CFR Part 136 <sup>4</sup>
	lbs/day	Calculate	1/Month	--
Ocean Plan Table B Parameters <sup>6</sup>	µg/L	Composite <sup>2</sup>	<sup>7</sup>	40 CFR Part 136 <sup>4</sup>
<b>Non-Conventional Pollutants</b>				
Settleable Solids	ml/L	Grab	1/Day	40 CFR Part 136
Turbidity	NTU	Grab	1/Week	40 CFR Part 136

- <sup>1</sup> Monitoring for parameters with a minimum sampling frequency of 1/Week and 1/Month must be conducted on the day of that calendar week or calendar month during which the greatest quantity of seafood is processed.
- <sup>2</sup> Composite samples shall be composed of aliquots collected with a sampling interval of approximately 1 hour during the period of discharge on the day during which the greatest quantity of seafood is processed.
- <sup>3</sup> The mass loading of total suspended solids and oil and grease shall be expressed as lbs/1,000 lbs of seafood processed, as follows:  

$$\left( \frac{y \text{ lbs / day}}{\left( \frac{z \text{ lbs seafood processed}}{1,000} \right)} \right)$$

Where:  
y = the total mass loading of TSS = TSS concentration (mg/L) x 8.34 x flow rate (MGD)  
z = the total seafood production
- <sup>4</sup> For toxic pollutants with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix II of the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) is not below the effluent limitation, the detection limit shall be the lowest ML. For toxic pollutants without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix II of the Ocean Plan.
- <sup>5</sup> Phenolic compounds (non-chlorinated) include 2,4-dimethylphenol; 4,6-dinitro-2-methylphenol; 2,4-dinitrophenol; 2-methylphenol; 4-methylphenol; 2-nitrophenol; 4-nitrophenol; and phenol.
- <sup>6</sup> Those pollutants identified in Table B of the Ocean Plan, excluding Table B pollutants with specific monitoring requirements established by this table (Table E-2) and acute toxicity.
- <sup>7</sup> Monitoring is required once during the third year of the permit term.

## B. Monitoring Location EFF-001B

1. The Discharger shall monitor pump maintenance wastewater at Monitoring Location EFF-001B as follows.

**Table E-3. Effluent Monitoring Requirements, Monitoring Location EFF-001B**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Flow	MGD	Meter	Daily	40 CFR 136
pH	std units	Grab	Daily	40 CFR 136
Settleable Solids	mL/L-hr	Grab	Daily <sup>1</sup>	40 CFR 136
Total Suspended Solids		Composite <sup>2</sup>	1X/Week	40 CFR 136
Turbidity	NTUs	Grab	1X/Week <sup>1</sup>	40 CFR 136
Oil and Grease	mg/L	Composite <sup>2</sup>	1X/Week <sup>1</sup>	40 CFR 136
Chronic WET	TUc	per sec. V, below	1X/Year	40 CFR 136
Ocean Plan Table B Pollutants <sup>3</sup>	µg/L	Composite <sup>2</sup>	1X/Permit Term	40 CFR 136 <sup>4</sup>

- <sup>1</sup> Monitoring shall be performed so that effluent samples reflect discharges attributable to pump maintenance.
- <sup>2</sup> Composite samples shall be composed of aliquots collected at approximately one hour intervals when effluent samples reflect discharges attributable to pump maintenance.
- <sup>3</sup> All pollutants with applicable water quality objectives established by the Table B of the Ocean Plan, except radioactivity, acute WET, and those Table B pollutants with monitoring requirements already established by Table E-3 (chronic WET). This monitoring shall be conducted during the third year of the permit term.

- <sup>4</sup> Analyses shall be conducted and analytical results shall be reported for each pollutant using a Minimum Level (established in Appendix II of the Ocean Plan) that is lower than the corresponding water quality objective for each pollutant (established in Table B of the Ocean Plan).

## V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

The Order requires annual chronic WET monitoring at Monitoring Locations EFF-001A and EFF-001B. In certain circumstances, accelerated WET testing and/or a Toxicity Reduction Evaluation (TRE) are required, when the WET effluent limitation of 21 TUC at EFF-001A, or the WET “trigger” of 21 TUC at EFF-001B, are exceeded.

### A. Chronic Toxicity Testing

The Discharger shall conduct chronic toxicity testing to demonstrate compliance with the chronic toxicity water quality objective established in Table B of the Ocean Plan. The Discharger shall meet the following chronic toxicity testing requirements:

- Test Frequency.** The Discharger shall conduct annual chronic toxicity testing at Monitoring Locations EFF-001A and EFF-001B.
- Sample Type.** For 96-hour static renewal or 96-hour static non-renewal testing, effluent samples shall be grab samples that are representative of the volume and quality of the discharge from the facility. For toxicity tests requiring renewals, grab samples collected on consecutive days are required.
- Test Species.** Critical life stage bioassay testing shall be conducted using an approved test, and test species, as described by Table III-1 of the Ocean Plan and presented below. Initial testing shall be conducted with a vertebrate, an invertebrate, and a plant species, and thereafter, monitoring can be reduced to the most sensitive species. At least once every five years, the Discharger shall rescreen once with three species and continue to monitor with the most sensitive species.

**Table E-4. Approved Tests – Chronic Toxicity**

Species	Test	Tier <sup>1</sup>	Reference <sup>2</sup>
Giant kelp, <i>Macrocystis pyrifera</i>	percent germination; germ tube length	1	a, c
Red abalone, <i>Haliotis rufescens</i>	abnormal shell development	1	a, c
Oyster, <i>Crassostrea gigas</i> ; mussels, <i>Mytilus spp.</i>	abnormal shell development; percent survival	1	a, c
Urchin, <i>Strongylocentrotus purpuratus</i> ; sand dollar, <i>Dendraster excentricus</i>	percent normal development	1	a, c
Urchin, <i>Strongylocentrotus purpuratus</i> ; sand dollar, <i>Dendraster excentricus</i>	percent fertilization	1	a, c
Shrimp, <i>Homesimysis costata</i>	percent survival; growth	1	a, c
Shrimp, <i>Mysidopsis bahia</i>	percent survival; fecundity	2	b, d

Species	Test	Tier <sup>1</sup>	Reference <sup>2</sup>
Topsmelt, <i>Atherinops affinis</i>	larval growth rate; percent survival	1	a, c
Silverside, <i>Menidia beryllina</i>	larval growth rate; percent survival	2	b, d

<sup>1</sup> First tier methods are preferred for compliance monitoring. If first tier organisms are not available, the Discharger can use a second tier test method following approval by the Regional Water Board.

<sup>2</sup> Protocol References:

- a. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. U.S. EPA Report No. EPA/600/R-95/136.
- b. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms. U.S. EPA Report No. EPA-600-4-91-003.
- c. SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project. 96-1WQ.
- d. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Nieheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1998. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

4. **Test Methods.** The presence of chronic toxicity shall be estimated as specified in USEPA's *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to West Coast Marine and Estuarine Organisms* (USEPA Report No. EPA/600/R-95/136, or subsequent editions), *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms* (USEPA Report No. EPA-821-R-02-014 or subsequent editions), or other methods approved by the Executive Officer.
5. **Test Dilutions.** The chronic toxicity test shall be conducted using a series of at least five dilutions and a control. The series shall consist of the following dilution series: 6.25, 12.5, 25, 50, and 100 percent, and a control. Control and dilution water shall be receiving water collected at an appropriate location beyond the influence of the discharge. Laboratory water may be substituted for receiving water, as described in the USEPA test methods manual, upon approval by the Executive Officer. If the dilution water used is different from the culture water, a second control using culture water shall be used.
6. **Reference Toxicant.** If organisms are not cultured in-house, concurrent testing with a reference toxicant shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests also shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

7. **Test Failure.** If either the reference toxicant test or the chronic toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger shall re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.
8. **Notification.** The Discharger shall notify the Regional Water Board in writing 14 days after the receipt of test results, which indicate the exceedance of the effluent limitation for chronic toxicity.
9. **Accelerated Monitoring Requirements.** If the result of any chronic toxicity test exceeds the chronic toxicity effluent limitation of 21 TUC at EFF-001A, or the adjusted water quality objective of 21 TUC at EFF-001B, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring. Accelerated monitoring shall consist of four additional effluent samples, one test conducted approximately every week over a four week period. Testing shall commence within 14 days of receipt of the sample results of the exceedance of the chronic toxicity effluent limitation or adjusted water quality objective. If the discharge will cease before the additional samples can be collected, the Discharger shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the chronic toxicity effluent limitation or water quality objective.

The following protocol shall be used for accelerated monitoring and TRE implementation:

- a. If the results of four consecutive accelerated monitoring tests do not exceed the chronic toxicity effluent limitation or WET trigger, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. However, if there is adequate evidence of a pattern of effluent toxicity, the Regional Water Board's Executive Officer may require that the Discharger initiate a TRE.
- b. If the source(s) of the toxicity is easily identified (i.e. temporary plant upset), the Discharger shall make necessary corrections to the facility and shall continue accelerated monitoring until four (4) consecutive accelerated tests do not exceed the chronic toxicity effluent limitation. Upon confirmation that the chronic toxicity has been removed, the Discharger may cease accelerated monitoring and resume routine chronic toxicity monitoring.
- c. If the result of any accelerated toxicity test exceeds the chronic toxicity effluent limitation or WET trigger, the Discharger shall cease accelerated monitoring and initiate a TRE to investigate the cause(s) and identify corrective actions to reduce or eliminate the chronic toxicity. Within thirty (30) days of notification by the laboratory of the test results exceeding the effluent limitation for chronic toxicity during accelerated monitoring, the Discharger shall submit a TRE Action Plan to the Regional Water Board including, at minimum:



- (1) Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including a TRE WET monitoring schedule;
- (2) Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
- (3) A schedule for these actions.

## **B. Chronic Toxicity Reporting**

1. **Routine Reporting.** Test results for chronic toxicity monitoring shall be reported according to the appropriate chronic guidance manuals and this Monitoring and Reporting Program, and shall be attached to the self-monitoring report. Test results shall include, at a minimum, for each test:
  - a. sample date(s)
  - b. test initiation date
  - c. test species
  - d. end point values for each dilution (e.g., number of young, growth rate, percent survival)
  - e. NOEC value(s) in percent effluent
  - f. IC15, IC25, IC40, and IC50 values (or EC15, EC25...etc.) in percent effluent
  - g. TUc values (100/NOEC)
  - h. Mean percent mortality ( $\pm$ s.d.) after 96 hours in 100 percent effluent (if applicable)
  - i. NOEC and LOEC values for reference toxicant test(s)
  - j. IC50 or EC50 value(s) for reference toxicant test(s)
  - k. Available water quality measurements for each test (e.g., pH, DO, temperature, conductivity, hardness, salinity, ammonia)
  - l. Statistical methods used to calculate endpoints.
  - m. The statistical output page, if appropriate, which includes the calculation of percent minimum significant difference (PMSD.)
2. **Quality Assurance Reporting.** Because the permit requires sublethal hypothesis testing endpoints from methods 1006.0 and 1007.0 in the test methods manual titled *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014, 2002), with-in test variability must be reviewed for acceptability and variability criteria (upper and lower PMSD bounds) must be applied, as directed under section 10.2.8 – *Test Variability* of the test methods manual. Under section 10.2.8, the calculated PMSD for both

reference toxicant test and effluent toxicity test results must be compared with the upper and lower PMSD bounds variability criteria specified in Table 6 – *Variability Criteria (Upper and Lower PMSD Bounds) for Sublethal Hypothesis Testing Endpoints Submitted Under NPDES Permits*, following the review criteria in paragraphs 10.2.8.2.4.1 through 10.2.8.2.4.5 of the test methods manual. Based on this review, only accepted effluent toxicity test results shall be reported.

3. **Compliance Summary:** The results of the chronic toxicity testing shall be provided in the most recent self-monitoring report and shall include a summary table organized by test species, type of test (survival, growth or reproduction) and monitoring frequency (routine, accelerated or TRE) of toxicity data from at least three of the most recent samples. The final report shall clearly demonstrate that the Discharger is in compliance with effluent limitations and other permit requirements.

#### VI. LAND DISCHARGE MONITORING REQUIREMENTS *(Not Applicable)*

#### VII. RECLAMATION MONITORING REQUIREMENTS *(Not Applicable)*

#### VIII. RECEIVING WATER MONITORING REQUIREMENTS

##### A. Monitoring Locations RSW-001 and RSW-002

1. The Discharger shall conduct water quality monitoring of the Pacific Ocean at Monitoring Locations RSW-001 and RSW-002 in accordance with the following schedule. Receiving water monitoring may be coordinated with receiving water monitoring conducted by the City of Crescent City Wastewater Treatment Facility.

**Table E-5. Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Frequency	Required Analytical Method
pH	stnd units	Grab 1	1X/year	40 CFR 136
Dissolved Oxygen	mg/L	Grab 1	1X/Year	40 CFR 136

<sup>1</sup> Samples shall be collected within 3 feet of the surface and at a depth of approximately 15 feet below the surface.

#### IX. OTHER MONITORING REQUIREMENTS *(Not Applicable)*

#### X. REPORTING REQUIREMENTS

##### A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. **Schedules of Compliance.** If applicable, the Discharger shall submit all reports and documentation required by compliance schedules that are established by this Order. Such reports and documentation shall be submitted to the Regional Water Board on or before each compliance date established by this Order. If noncompliance is reported, the Discharger shall describe the reasons for noncompliance and a specific date when compliance will be achieved. The Discharger shall notify the Regional Water Board when it returns to compliance with applicable compliance dates established by schedules of compliance.

## **B. Self Monitoring Reports (SMRs)**

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule.

**Table E-6. Monitoring Periods and Reporting Schedule**

<b>Sampling Frequency</b>	<b>Monitoring Period begins On ...</b>	<b>Monitoring Period</b>	<b>SMR Due Date</b>
Continuous	September 11, 2009	All	First day of second calendar month following month of sampling
1X/Day	September 11, 2009	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
1X/Week	September 14, 2009	Sunday through Saturday	First day of second calendar month following month of sampling
1X/Year	January 1, 2010	January 1 through December 31	February 1 following the monitoring event
1X/Permit Term	September 11, 2009	Permit effective date continuing for 5 years thereafter	February 1 following the monitoring event and no later than 180 days prior to the expiration date of the Order

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
  - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.
5. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
  - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective

actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

- c. SMRs must be submitted to the Regional Water Board, signed, and certified as required by the Standard Provisions (Attachment D), to the address listed below:

Regional Water Quality Control Board  
North Coast Region  
5550 Skylane Blvd., Suite A  
Santa Rosa, CA 95403

### C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

Standard Mail	FedEx/UPS/ Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 <sup>th</sup> Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

### D. Other Reports

1. **Annual Report.** The Discharger shall submit an Annual Report to the Regional Water Board for each calendar year. The report shall be submitted by February 1<sup>st</sup> of the following year. The report shall, at a minimum, include the following.
  - a. Both tabular and, where appropriate, graphical summaries of the monitoring data and disposal records from the previous year. If the Discharger monitors any

pollutant more frequently than required by this Order, using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and a report of the data submitted with the SMR.

- b. A comprehensive discussion of the facility's compliance (or lack thereof) with all effluent limitations and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.

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## ATTACHMENT F – FACT SHEET

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## ATTACHMENT F – FACT SHEET

As described in section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

### I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

**Table F-1. Facility Information**

<b>WDID</b>	1A84005ODN
<b>Discharger</b>	Crescent City Harbor District
<b>Name of Facility</b>	Crescent City Harbor Seafood Processing Wastewater System
<b>Facility Address</b>	141 Starfish Way
	Crescent City, CA 95531
	Del Norte County
<b>Facility Contact, Title and Phone</b>	Richard Young, Harbor Master, (707) 464-6174
<b>Authorized Person to Sign and Submit Reports</b>	Richard Young, Harbor Master, (707) 464-6174
<b>Mailing Address</b>	101 Citizens Dock Road, Crescent City, CA 95531
<b>Billing Address</b>	Same as Mailing Address
<b>Type of Facility</b>	Industrial with 2092 SIC code
<b>Major or Minor Facility</b>	Minor
<b>Threat to Water Quality</b>	2
<b>Complexity</b>	B
<b>Pretreatment Program</b>	No
<b>Reclamation Requirements</b>	No
<b>Facility Permitted Flow</b>	0.8 million gallons per day (MGD) – Seafood processing wastewater 1,000 gallons per week (GPW) – Pump maintenance wastewater
<b>Facility Design Flow</b>	0.8 MGD
<b>Watershed</b>	Smith River Hydrologic Unit
<b>Receiving Water</b>	Pacific Ocean
<b>Receiving Water Type</b>	Ocean waters

- A. The Crescent City Harbor District (hereinafter the Discharger) is the owner and operator of the Crescent City Harbor Seafood Processing Wastewater System.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B.** The Facility discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order No. R1-2004-0024 which was adopted on May 12, 2004 and expired on May 12, 2009. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order.
- C.** The Discharger filed a Report of Waste Discharge and submitted an application for renewal of its WDRs and NPDES permit on December 5, 2008. The application was deemed complete on April 10, 2009.

## **II. FACILITY DESCRIPTION**

The Discharger owns and operates a wastewater treatment facility which serves seafood processors located in the Crescent City Harbor District. Final products include live crab, whole-cooked crab, frozen crab sections, and whole and frozen bottom fish. At present, the facility serves only the Alber Seafood Company located immediately to the west of the wastewater treatment system. Wastewaters resulting from fish and crab processing and chlorinated rinsewaters are produced intermittently during the crab and bottom fish seasons and treated by the Harbor District’s wastewater treatment facility.

### **A. Description of Wastewater and Solids Treatment or Controls**

Wastewater treatment is accomplished by a rotating, self-cleaning screen designed to treat up to 800,000 gallons per day (GPD) of process wastewater. A 500,000-gallon holding tank is available for flow equalization. The holding tank is bypassed during periods of low flow. The volume of process water flow ranges up to 100,000 GPD, with an average flow rate of approximately 13,000 GPD. The average concentration of process water suspended solids is approximately 87.5 mg/L. The average concentration of Oil and Grease is approximately 8.6 mg/L. Fish solids that pass through screens in the floor drains at the seafood processor (primarily fish scales) are captured on the rotating screen, bagged, and sent to the local solid waste transfer station for disposal. Up to 1,000 gallons of non-process wastewater may also be discharged weekly when wastewater pumps are maintained during non-processing periods. Non-process water consists of non-contact cooling water, boiler water, freshwater, pressure relief water, refrigerator condensate, water used to transfer seafood to the facility, live tank water, other non-process water (excluding wastewater from floor drains), and chemicals used during cleanup at the seafood processor.

## B. Discharge Points and Receiving Waters

Treated wastewater from the facility is mixed with up to 6.12 million gallons per day (MGD) of treated municipal wastewater from the City of Crescent City Wastewater Treatment Facility, which is regulated by NPDES Permit No. CA0022756. Two 4-MGD pumps transfer the combined effluent to a new 24-inch diameter ductile iron outfall discharging approximately 800 feet into the Pacific Ocean through a rocky slot in the surf zone adjacent to the Battery Point Lighthouse at latitude 41° 44' 38" North and longitude 124° 12' 38" West.

## C. Summary of Existing Requirements and Self-Monitoring Data

Effluent limitations contained in Order No. R1-2004-0024 for conventional and toxic pollutants during periods of seafood processing and during periods of pump maintenance and representative monitoring data from the term of that Order are presented below.

**Table F-2. Historic Effluent Limitations and Monitoring Data for Conventional Pollutants During Seafood Processing**

Parameter	Units	Effluent Limitation		Monitoring Data <sup>1</sup> (January 2005 – May 2008)	
		Average Monthly <sup>2</sup>	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
Suspended Solids	lb/1,000 lb bottom fish	2.0	3.6	5.00	10.016
	lb/1,000 lb crab	2.7	8.1	1.76	8.021
	lb/1,000 lb shrimp	54	160	NR	NR
Oil and Grease	lb/1,000 lb bottom fish	0.55	1.0	0.34	1.53
	lb/1,000 lb crab	0.61	1.8	0.38	1.34
	lb/1,000 lb shrimp	42	126	NR	NR
pH	units	--	6.0 – 9.0	--	6.4 – 8.1

NR- Not Reported

<sup>1</sup> The Discharger's self-monitoring reports (SMRs) do not distinguish between discharges of process wastewater and pump maintenance discharges. Reported values represent all monitoring data reported in the Discharger's SMRs.

<sup>2</sup> The arithmetic mean of the values for effluent samples collected in a calendar month.

**Table F-3. Historic Effluent Limitations and Monitoring Data for Conventional Pollutants During Pump Maintenance**

Parameter	Units	Effluent Limitation		Monitoring Data <sup>1</sup> (January 2005 – May 2008)	
		Average Monthly <sup>2</sup>	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
Flow	gal/week	--	1,000	--	NR
Total Suspended Solids	mg/L	--	60	--	491
Oil and Grease	mg/L	25	40	44.3	77
Settleable Solids	ml/L	1.0	1.5	4.2	17

Parameter	Units	Effluent Limitation		Monitoring Data <sup>1</sup> (January 2005 – May 2008)	
		Average Monthly <sup>2</sup>	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
Turbidity	NTU	75	100	133	1,047
pH	units	--	6.0 – 9.0	--	6.4 – 8.1

<sup>1</sup> The Discharger's SMRs do not distinguish between discharges of process wastewater and pump maintenance discharges. Reported values represent all monitoring data reported in the Discharger's SMRs.

<sup>2</sup> The arithmetic mean of the values for effluent samples collected in a calendar month.

**Table F-4. Historic Effluent Limitations and Monitoring Data for Toxic Pollutants**

Parameter	Units	Effluent Limitations				Monitoring Data (January 2005 – May 2008)			
		6-Month Median <sup>1</sup>	Monthly Average <sup>2</sup>	Daily Maximum <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Highest 6-Month Median	Highest Monthly Average	Highest Daily Maximum	Highest Instantaneous Maximum
Acrylonitrile	µg/L	--	2.1	--	--	--	<2	--	--
Ammonia	µg/L	13,000	--	50,000	130,000	26,200	42,000	60,000	--
Antimony	µg/L	--	25,000	--	--	--	<0.5	--	--
Benzene	µg/L	--	124	--	--	--	<0.5	--	--
Bis (2-ethylhexyl) phthalate	µg/L	--	74	--	--	--	<2	--	--
Cadmium	µg/L	21	--	84	210	15	15	15	--
Chlorine Residual (total)	µg/L	42	--	170	1,300	80	--	3,140	3,140
Chromium (hexavalent) <sup>5</sup>	µg/L	42	--	170	420	6.7 <sup>6</sup>	--	6.7 <sup>6</sup>	6.7 <sup>6</sup>
Copper	µg/L	23	--	210	600	240	--	240	240
1,1-Dichloro-ethylene	µg/L	--	19	--	--	--	<0.5	--	--
Lead	µg/L	42	--	170	420	2.3	--	2.3	2.3
Mercury	µg/L	0.83	--	3.4	8.4	0.017	--	0.017	0.017
Nickel	µg/L	105	--	420	1,050	16	--	16	16
Zinc	µg/L	260	--	1,460	4,000	750	--	750	750

<sup>1</sup> The 6-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. If only one sample is collected during the 180-day period, the single measurement shall be used to determine compliance with the effluent limitation for the entire time period.

<sup>2</sup> The arithmetic mean of all daily determinations made during a calendar month. Where less than daily sampling is required, the average shall be determined by the summation of all the measured daily discharges divided by the number of days during the calendar month when the measurements were made. If only one sample is collected during that period of time, the value of the single sample shall constitute the monthly average.

<sup>3</sup> The daily maximum shall apply to flow-weighted 24-hour composite samples. The daily maximum is defined as the maximum result of all samples collected in a calendar day.

<sup>4</sup> The instantaneous maximum shall apply to grab sample determinations for Ocean Plan Table B constituents. Each value collected in a calendar day is evaluated independently and compared to the limitation.

<sup>5</sup> The Permittee may meet this limit as a total chromium limit.

<sup>6</sup> Represents total chromium.

#### **D. Compliance Summary**

Administrative Civil Liability (ACL) Order No. R1-2007-0008 was adopted by the Regional Water Board on March 15, 2007 in response to seventeen serious and two chronic permit violations during the period from January 1, 2000 through June 30, 2006. The Order assessed mandatory minimum penalties in the amount of \$48,000; however it allowed the Discharger to perform a Compliance Project to satisfy up to \$38,000 of that amount. The Discharger chose as a Compliance Project to install an effluent flowmeter and produce a report to evaluate the costs and feasibility of upgrading the existing treatment facility to comply with all requirements of Order No. R1-2004-0024 and pay the \$10,000 balance of the penalty to the California Cleanup and Abatement Account. The flowmeter installation project was completed in April 2009.

#### **E. Planned Changes**

As part of the Compliance Project required pursuant to ACL Order No. R1-2007-0008, the Discharger prepared and submitted an Alternatives Analysis Report (Kennedy/Jenks Consultants) on May 28, 2008. The analysis defined costs and feasibility of treatment facility upgrades necessary to comply with Order No. R1-2004-0024 and also evaluated costs of discontinuing the discharge to the Pacific Ocean and discharging to the local sewer system. Discharge to the local sewer system was the lowest cost alternative and was the approach recommended by the consultant. As of March 2009, the Discharger was working with the City of Crescent City to evaluate the feasibility of this project.

### **III. APPLICABLE PLANS, POLICIES, AND REGULATIONS**

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

#### **A. Legal Authorities**

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

#### **B. California Environmental Quality Act (CEQA)**

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

## C. State and Federal Regulations, Policies, and Plans

- 1. Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan for the North Coast Basin* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean. Beneficial uses applicable to the Pacific Ocean are as follows.

**Table F-5. Basin Plan Beneficial Uses**

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	<p><u>Existing:</u></p> <p>NAV – Navigation</p> <p>REC1 – Water Contact Recreation</p> <p>REC2 – Non-contact Water Recreation</p> <p>COMM – Commercial and Sport Fishing</p> <p>WILD – Wildlife Habitat</p> <p>RARE – Rare, Threatened, or Endangered Species</p> <p>MAR – Marine Habitat</p> <p>MIGR – Migration of Aquatic Organisms</p> <p>SPWN – Spawning, Reproduction, and/or Early Development</p> <p>SHELL – Shellfish Harvesting</p> <p>AQUA – Aquaculture</p> <p><u>Potential:</u></p> <p>IND – Industrial Service Supply</p> <p>PRO – Industrial Process Supply</p> <p>ASBS – Preservation of Areas of Special Biological Significance</p>

Requirements of this Order implement the Basin Plan.

- 2. California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21, 2005 and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies for protection the following beneficial uses of ocean waters of the State.

**Table F-6. Ocean Plan Beneficial Uses**

Discharge Point	Receiving Water	Beneficial Use(s)
001	Pacific Ocean	<ul style="list-style-type: none"> <li>• Industrial water supply</li> <li>• Water contact and non-contact recreation, including aesthetic enjoyment</li> <li>• Navigation</li> </ul>

Discharge Point	Receiving Water	Beneficial Use(s)
		<ul style="list-style-type: none"> <li>• Commercial and sport fishing</li> <li>• Mariculture</li> <li>• Preservation and enhancement of designated Areas of Special Biological Significance (ASBS)</li> <li>• Rare and endangered species</li> <li>• Marine habitat</li> <li>• Fish spawning and shellfish harvesting</li> </ul>

In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the Ocean Plan.

3. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 CFR § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
4. **Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.
5. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations<sup>1</sup>, section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. This Order is consistent with anti-backsliding requirements.

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<sup>1</sup> All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

#### **D. Impaired Water Bodies on CWA 303(d) List**

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies, to USEPA by April of each even numbered year. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) list also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. The USEPA requires the Regional Water Board to develop total maximum daily loads (TMDLs) for each 303(d) listed pollutant and water body contaminant. TMDLs establish the maximum quantity of a given pollutant that can be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant and determine wasteload allocations (the portion of a TMDL allocated to existing and future point sources) for point sources and load allocations (the portion of a TMDL attributed to existing and future nonpoint sources) for nonpoint sources.

Receiving waters for discharges from the Crescent City Harbor District's wastewater treatment facility are not identified on the State's most recent 303(d) list of impaired water bodies.

#### **E. Other Plans, Policies and Regulations**

On April 17, 1997, the State Water Board adopted State Water Board Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities. If applicable, the Discharger shall seek coverage under the General Permit.

### **IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS**

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

#### **A. Discharge Prohibitions**

- 1. Discharge Prohibition III.A.** The discharge of any waste not disclosed by the Discharger or not within the reasonable contemplation of the Regional Water Board is prohibited.



This prohibition is based on the Basin Plan, previous Order, and State Water Resources Control Board Order WQO 2002-0012 regarding the petition of WDRs Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies. In State Water Board Order WQO 2002-0012, the State Water Board found that this prohibition is acceptable in permits, but should be interpreted to apply only to constituents that are either not disclosed by the discharger or are not reasonably anticipated to be present in the discharge, but have not been disclosed by the discharger. It specifically does not apply to constituents in the discharge that do not have “reasonable potential” to exceed water quality objectives.

The State Water Board has stated that the only pollutants not covered by this prohibition are those which were “disclosed to the permitting authority and . . . can be reasonably contemplated.” (In re the Petition of East Bay Municipal Utilities District et al., (State Water Board 2002) Order No. WQ 2002-0012, p. 24.) The case cited in that order by the State Water Board reasoned that the Discharger is liable for discharges “not within the reasonable contemplation of the permitting authority . . . , whether spills or otherwise . . . .” (*Piney Run Preservation Assn. v. County Commissioners of Carroll County, Maryland* (4th Cir. 2001) 268 F.3d 255, 268.) Thus, State Water Board authority provides that, to be permissible, the constituent discharged (1) must have been disclosed by the discharger and (2) can be reasonably contemplated by the Regional Water Board.

The Regional Water Board has the authority to determine whether the discharge of a constituent is “reasonably contemplated.” The *Piney Run* case makes clear that the Discharger is liable for discharges “not within the reasonable contemplation of the permitting authority . . . , whether spills or otherwise . . . .” (268 F.3d 255, 268 [italics added].) In other words, whether or not the Discharger reasonably contemplates the discharge of a constituent is not relevant. What matters is whether the Discharger disclosed the constituent to the Regional Water Board or whether the presence of the pollutant in the discharge can otherwise be reasonably contemplated by the Regional Water Board at the time of permit adoption.

- 2. Discharge Prohibition III.B.** The discharge of untreated waste or partially treated waste (receiving a lower level of treatment than described in Finding II.B of the Order) from anywhere within the collection, treatment or disposal facility, except as provided for bypasses under the conditions of Standard Provisions, Section D of this Order, is prohibited.

This prohibition is based on the Basin Plan to protect beneficial uses of the receiving waters from unpermitted discharges, and the intent of California Water Code (Water Code) section 13376 which requires anyone discharging or proposing to discharge pollutants to waters of the United States to file a report of the discharge in compliance with the procedures set forth in Water Code section 13260, and sections 13261 through 13265, which requires waste discharge requirements be issued for

discharges to waters of the state, and set out potential to civil liability for discharging waste to waters of the State without filing a report of waste discharge and being issued a permit. This prohibition applies to spills and other unauthorized discharges of wastewater within the waste collection, treatment, and disposal facilities.

3. **Discharge Prohibition III.C.** Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code is prohibited.

This prohibition is based on Water Code Section 13050.

4. **Discharge Prohibition III.D.** The discharge of sludge from the holding tank is prohibited.

This Order requires that all collected screenings, sludges, and other solids removed from liquid wastes be disposed of in accordance with Title 27, Division 2 of the California Code of Regulations and the Ocean Plan. This Order retains the prohibition of the discharge of sludge from Order No. R1-2004-0024.

5. **Discharge Prohibition III.E.** The discharge of wastewater from shrimp processing is prohibited.

The Discharger reported in the Report of Waste Discharge that shrimp processing wastes are no longer discharged and effluent limitations from Order No. R1-2004-0024, which applied to discharges of shrimp processing wastes, have not been retained in this Order. Discharges of wastewater resulting from shrimp processing are therefore prohibited, as this order does not contemplate or adequately address such wastes. NPDES regulations at 122.41(l)(1) require the Discharger to notify the Regional Water Board if changes at the facility could significantly change the nature or increase the quantity of pollutants discharged. Treatment of shrimp processing wastewaters would be such a change requiring notification of the Regional Water Board.

## **B. Technology-Based Effluent Limitations**

### **1. Scope and Authority**

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on the *Effluent Limitations Guidelines and Standards for the Canned and Preserved Seafood Processing Point Source Category* in 40 CFR Part 408 and/ or Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3.

## 2. Applicable Technology-Based Effluent Limitations

- a. **Seafood Processing Wastewaters.** Subpart H of 40 CFR 408 establishes the following technology based requirements for the Dungeness and Tanner Crab Processing Subcategory.

**Table F-7. Technology Based Limitations for Dungeness and Tanner Crab Processing**

Parameter	Units	Effluent Limitations	
		Maximum for any 1 Day	Avg of Daily Values for 30 Consecutive Days
TSS	lbs/1,000 lbs of crab	8.1	2.7
Oil and Grease	lbs/1,000 lbs of crab	1.8	0.61
pH	standard units	6.0 – 9.0	

Subpart U of 40 CFR 408 establishes the following technology based requirements for the Non-Alaskan Conventional Bottom Fish Processing Subcategory. The provisions of this subpart apply to wastewaters resulting from the processing of bottom fish such as flounder, ocean perch, haddock, cod, sea catfish, sole, halibut, and rockfish.

**Table F-8. Technology Based Limitations for Non-Alaskan Conventional Bottom Fish Processing**

Parameter	Units	Effluent Limitations	
		Maximum for any 1 Day	Avg of Daily Values for 30 Consecutive Days
TSS	lbs/1,000 lbs of bottom fish	3.6	2.0
Oil and Grease	lbs/1,000 lbs of bottom fish	1.0	0.55
pH	standard units	6.0 – 9.0	

Order No. R1-2004-0024 established effluent limitations for seafood processing discharges based on effluent limitation guidelines for total suspended solids and oil and grease which apply individually based on the type of seafood processed (i.e., bottom fish, crab, or shrimp). Because crab and bottom fish are often processed at the same time and the seafood processing wastewater is commingled prior to being discharged to the outfall, it is more appropriate to establish effluent limitations for each parameter (i.e., total suspended solids and oil and grease) based on the proportion of each type of seafood processed. Thus, the technology-based effluent limitations in the following table have been included in this Order based on the effluent limitation guidelines established at 40

CFR Part 408 subparts H and U for discharges of seafood processing wastewater. Example calculations for effluent limitations and reporting requirements are included in Attachment H.

**Table F-9. Summary of Technology-based Effluent Limitations for Seafood Processing**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Total Suspended Solids	lbs/1,000 lbs of seafood processed	1	2	--	--
Oil and Grease	lbs/1,000 lbs of seafood processed	3	4	--	--
pH	standard units	--	--	6.0	9.0

<sup>1</sup> The average monthly effluent limitation for total suspended solids shall be calculated as follows:

$$\left[ \left( \frac{2.7 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs crab processed during month}}{\text{lbs seafood processed during month}} \right) + \left( \frac{2 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs bottomfish processed during month}}{\text{lbs seafood processed during month}} \right) \right]$$

<sup>2</sup> The maximum daily effluent limitation for total suspended solids shall be calculated as follows:

$$\left[ \left( \frac{8.1 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs crab processed during day}}{\text{lbs seafood processed during day}} \right) + \left( \frac{3.6 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs bottomfish processed during day}}{\text{lbs seafood processed during day}} \right) \right]$$

<sup>3</sup> The average monthly effluent limitation for oil and grease shall be calculated as follows:

$$\left[ \left( \frac{0.61 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs crab processed during month}}{\text{lbs seafood processed during month}} \right) + \left( \frac{0.55 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs bottomfish processed during month}}{\text{lbs seafood processed during month}} \right) \right]$$

<sup>4</sup> The maximum daily effluent limitation for total suspended solids shall be calculated as follows:

$$\left[ \left( \frac{1.8 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs crab processed during day}}{\text{lbs seafood processed during day}} \right) + \left( \frac{1.0 \text{ lbs}}{1,000 \text{ lbs}} \times \frac{\text{lbs bottomfish processed during day}}{\text{lbs seafood processed during day}} \right) \right]$$

**b. Pump Maintenance Discharges.** Table A of the Ocean Plan establishes technology-based effluent limitations for industrial discharges for which ELGs have not been established. Numeric effluent limitations for oil and grease, settleable solids, turbidity, and pH based on Table A of the Ocean Plan are being established in this Order for discharges from pump maintenance activities. Order No. R1-2004-0024 established effluent limitations based on the Ocean Plan, however the averaging periods for oil and grease, settleable solids, and turbidity were not consistent with those established in the Ocean Plan. This Order revises effluent limitations for these parameters to be consistent with the requirements of the Ocean Plan.

In addition to the effluent limitations based on Table A of the Ocean Plan, Order No. R1-2004-0024 established an effluent flow limitation of 1,000 gallons per

week for pump maintenance discharges. The effluent flow limitation is retained in this Order. Technology-based effluent limitations applicable to discharges from pump maintenance activities are described in the table below.

**Table F-10. Summary of Technology-Based Effluent Limitations for Pump Maintenance**

Parameter	Units	Effluent Limitations			
		Avg Monthly	Avg Weekly	Max Daily	Instantaneous Max
Flow	Gals		1,000	1,000	
TSS	mg/L			60	
Oil and Grease	mg/L	25	40		75
pH	std units	6.0 – 9.0 at all times			
Settleable Solids	mL/L-hr	1.0	1.5		3.0
Turbidity	NTUs	75	100		225

## C. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements more stringent than minimum federal technology-based requirements that are necessary to meet applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. A reasonable potential analysis (RPA) demonstrated reasonable potential for discharges from the Crescent City Harbor District's wastewater treatment facility to cause or contribute to exceedances of applicable water quality criteria for ammonia, cadmium, copper, nickel, phenolic compounds (non-chlorinated), zinc, total chlorine residual, and chronic toxicity at Discharge Point 001.

Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin and Ocean Plans, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the Ocean Plan.

## **2. Beneficial Uses and Water Quality Criteria and Objectives**

Beneficial uses established by the Basin Plan and Ocean Plan, applicable to the coastal receiving waters for discharges from the Crescent Harbor District's wastewater treatment facility are described in the findings of the Order and in section III.C.1 and 2 of this fact sheet. Water quality objectives, applicable to these receiving waters, are established by the Basin Plan and the Ocean Plan and include the water quality objectives for toxic pollutants established in Table B of the Ocean Plan.

## **3. Determining the Need for WQBELs**

### **a. Reasonable Potential Analysis**

Procedures for performing a reasonable potential analysis (RPA) for ocean dischargers are described in Section III.C and Appendix VI of the Ocean Plan. In general, the procedure is a statistical method that projects an effluent data set while taking into account the averaging period of water quality objectives, the long term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set, and compares the 95<sup>th</sup> percentile concentration at 95 percent confidence of each Table B pollutant, accounting for dilution, to the applicable water quality criterion. The RPA results in one of three following endpoints:

Endpoint 1 – There is “reasonable potential,” and a WQBEL and monitoring are required.

Endpoint 2 - There is no “reasonable potential.” WQBELs are not required, and monitoring is required at the discretion of the Regional Water Board.

Endpoint 3 - The RPA is inconclusive. Existing WQBELs are retained, and monitoring is required.

The State Water Resources Control Board has developed a reasonable potential calculator, which is available at <http://www.waterboards.ca.gov/plnspols/docs/oplans/rpcalc.zip>. The calculator (RPcalc 2.0) was used in conducting the RPA and considers several pathways in the determination of reasonable potential.

1. First Path

If available information about the receiving water or the discharge supports a finding of reasonable potential without analysis of effluent data, the Regional Water Board may decide that WQBELs are necessary after a review of available information. Such information may include: the facility or discharge type, solids loading, lack of dilution, history of compliance problems, potential toxic effects, fish tissue data, 303(d) status of the receiving water, or the presence of threatened or endangered species or their critical habitat, or other information.

2. Second Path

If any pollutant concentration, adjusted to account for dilution, is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

3. Third Path

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the minimum level or ML), and all values in the data set are at or above the ML, a parametric RPA is conducted to project the range of possible effluent values. The 95<sup>th</sup> percentile concentration is determined at 95 percent confidence for each pollutant, and compared to the most stringent applicable water quality objective to determine reasonable potential. A parametric analysis assumes that the range of possible effluent values is distributed lognormally. If the 95<sup>th</sup> percentile value is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

4. Fourth Path

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the ML), but at least one value in the data set is less than the ML, a parametric RPA is conducted according to the following steps.

- (1) If the number of censored values (those expressed as a "less than" value) account for less than 80 percent of the total number of effluent values, calculate the  $M_L$  (the mean of the natural log of transformed data) and  $S_L$  (the standard deviation of the natural log of transformed data) and conduct a parametric RPA, as described above for the Third Path.
- (2) If the number of censored values account for 80 percent or more of the total number of effluent values, conduct a non-parametric RPA, as described below for the Fifth Path. (A non-parametric analysis becomes

necessary when the effluent data is limited, and no assumptions can be made regarding its possible distribution.)

#### 5. Fifth Path

A non-parametric RPA is conducted when the effluent data set contains less than three detected and quantified values, or when the effluent data set contains three or more detected and quantified values but the number of censored values accounts for 80 percent or more of the total number of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable water quality objective, and accounting for ties. The sample number is reduced by one for each tie, when the dilution-adjusted method detection limit (MDL) is greater than the water quality objective. If the adjusted sample number, after accounting for ties, is greater than 15, the pollutant has no reasonable potential to exceed the water quality objective. If the sample number is 15 or less, the RPA is inconclusive, monitoring is required, and any existing effluent limits in the expiring permit are retained.

#### b. Reasonable Potential Determination

The following table presents results of the RPA, performed in accordance with procedures described by the Ocean Plan that are summarized above. The RPA was conducted using a dilution factor of  $D = 20$  and effluent monitoring data reported by the Discharger for seafood processing wastewater generated during monitoring events conducted between January 2004 and May 2008.

The RPA endpoint for each Table B pollutant is identified. As shown in the following table, the RPA commonly leads to Endpoint 3, meaning that the RPA is inconclusive, when a majority of the effluent data is reported as not detected (ND). In these circumstances, the Regional Water Board views the “inconclusive” result as an indication of no concern for a particular pollutant; however, additional monitoring will be required for those pollutants during the term of the reissued permit.

The RPA showed reasonable potential for total chlorine residual, ammonia, cadmium, copper, nickel, phenolic compounds (non-chlorinated), and zinc, and therefore, effluent limitations for these pollutants are required for Discharge Point No. 001 for discharges of seafood processing wastewater.

Monitoring data for discharges of pump maintenance wastewater is not available and an RPA has not been conducted. This Order requires the Discharger to conduct effluent monitoring of pump maintenance discharges for the Ocean Plan Table B pollutants one time during the anticipated five year permit term. If monitoring data indicates reasonable potential to exceed water quality objectives, effluent limitations will be established.



**Table F-11. Results of Reasonable Potential Analysis**

Table B Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Conc. (µg/L)	RPA Result, Comment
<b>Objectives for Protection of Marine Aquatic Life</b>					
Total Chlorine Residual	2	367	268	3,140	<b>Endpoint 1-An effluent limitation must be developed for the pollutant.</b> Monitoring is required.
Ammonia	600	110	8	60,000	<b>Endpoint 1-An effluent limitation must be developed for the pollutant.</b> Monitoring is required.
Cadmium	1	3	0	15	<b>Endpoint 1-An effluent limitation must be developed for the pollutant.</b> Monitoring is required.
Total Chromium	2	1	0	6.7	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Copper	3	3	0	240	<b>Endpoint 1-An effluent limitation must be developed for the pollutant.</b> Monitoring is required.
Lead	2	3	1	2.3	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Mercury	0.04	3	2	0.017	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Nickel	5	3	0	16	<b>Endpoint 1-An effluent limitation must be developed for the pollutant.</b> Monitoring is required.
Zinc	20	3	0	750	<b>Endpoint 1-An effluent limitation must be developed for the pollutant.</b> Monitoring is required.
Phenolic Compounds (non-chlorinated) <sup>1</sup>	30	3	0	2,360	<b>Endpoint 1-An effluent limitation must be developed for the pollutant.</b> <b>Monitoring is required.</b>
<b>Objectives for Protection of Human Health – Noncarcinogens</b>					
1,1,1-Trichloroethane	540,000	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
2,4-Dinitrophenol	4.0	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
2-Methyl-4,6-Dinitrophenol	220	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Acrolein	220	3	2	8.3	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Antimony	1,200	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Bis(2-Chloroethoxy)Methane	4.4	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Bis(2-Chloroisopropyl)Ether	1,200	3	2	4.6	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Chlorobenzene	570	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Dichlorobenzenes <sup>2</sup>	5,100	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Diethyl Phthalate	33,000	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Dimethyl Phthalate	820,000	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.

CRESCENT CITY HARBOR DISTRICT  
CRESCENT CITY HARBOR SEAFOOD WASTEWATER SYSTEM  
ORDER NO. R1-2009-0040  
NPDES NO. CA0024473

Table B Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Conc. (µg/L)	RPA Result, Comment
Di-n-Butyl Phthalate	3,500	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Ethylbenzene	4,100	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Fluoranthene	15	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Hexachlorocyclopentadiene	58	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Nitrobenzene	4.9	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Toluene	85,000	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
<b>Objectives for Protection of Human Health – Carcinogens</b>					
1,1,2,2-Tetrachloroethane	2.3	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
1,1,2-Trichloroethane	9.4	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
1,1-Dichloroethylene	0.9	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
1,2-Dichloroethane	28	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
1,2-Diphenylhydrazine	0.16	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
1,3-Dichloropropylene	8.9	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
1,4 Dichlorobenzene	18	3	2	0.92	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
2,4,6-Trichlorophenol	0.29	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
2,4-Dinitrotoluene	2.6	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
3,3'-Dichlorobenzidine	0.0081	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Acrylonitrile	0.10	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Benzene	5.9	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Bis(2-Chloroethyl)Ether	0.045	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Bis(2-Ethylhexyl)Phthalate	3.5	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Carbon Tetrachloride	0.90	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Chlorodibromomethane	8.6	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Chloroform	130	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Dichlorobromomethane	6.2	3	2	0.74	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Halomethanes <sup>3</sup>	130	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.

Table B Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Conc. (µg/L)	RPA Result, Comment
Hexachlorobenzene	0.00021	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Hexachlorobutadiene	14	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Hexachloroethane	2.5	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Isophorone	730	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Methylene Chloride	450	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
N-Nitrosodi-n-Propylamine	0.38	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
N-Nitrosodiphenylamine	2.5	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Polynuclear Aromatic Hydrocarbons <sup>4</sup>	0.0088	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Tetrachloroethylene	2.0	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Trichloroethylene	27	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.
Vinyl Chloride	36	3	3	ND	Endpoint 3-RPA is inconclusive. Less than three detects or greater than 80% ND.

ND – Not detected

<sup>1</sup> Applies to the sum of 2,4-dimethylphenol; 4,6-dinitro-2-methylphenol; 2,4 dinitrophenol; 2-methylphenol; 4-methylphenol; 2-nitrophenol; 4-nitrophenol; and phenol.

<sup>2</sup> Applies to the sum of 1,2-dichlorobenzene and 1,3-dichlorobenzene.

<sup>3</sup> Applies to the sum of bromoform, bromomethane, and chloromethane.

<sup>4</sup> Applies to the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, fluorine, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene.

#### 4. WQBEL Calculations

Based on results of the RPA, performed in accordance with methods of the Ocean Plan for discharges to the Pacific Ocean, the Regional Water Board is establishing WQBELs for ammonia, total chlorine residual, cadmium, copper, nickel, zinc, and non-chlorinated phenolic compounds.

As described by Section III.C of the Ocean Plan, effluent limits for Table B pollutants are calculated according to the following equation.

$$Ce = Co + Dm (Co - Cs)$$

Where:

Ce = the effluent limitation (µg/L)

Co = the concentration (the water quality objective) to be met at the completion of initial dilution ( $\mu\text{g/L}$ ).

Cs = background seawater concentration ( $\mu\text{g/L}$ )

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (here, Dm = 20)

Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. The minimum probable initial dilution (Dm = 20) is unchanged from Order No. R1-2004-0024.

As site-specific water quality data is unavailable, in accordance with Table B implementing procedures, Cs equals zero for all pollutants, except the following.

**Table F-12. Background Concentrations**

Pollutant	Background Seawater Concentration ( $\mu\text{g/L}$ )
Arsenic	3
Copper	2
Mercury	0.0005
Silver	0.16
Zinc	8

Applicable water quality objectives from Table B of the Ocean Plan are as follows.

**Table F-13. Water Quality Objectives from Ocean Plan Table B**

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Ammonia as N	$\mu\text{g/L N}$	600	2,400	6,000
Cadmium	$\mu\text{g/L}$	1	4	10
Total Chlorine Residual	$\mu\text{g/L}$	2	8	60
Copper	$\mu\text{g/L}$	3	12	30
Nickel	$\mu\text{g/L}$	5	20	50
Zinc	$\mu\text{g/L}$	20	80	20
Phenolic Compounds (non-chlorinated)	$\mu\text{g/L}$	30	120	300

Using the equation,  $C_e = C_o + D_m (C_o - C_s)$ , effluent limitations are calculated as follows. Here, Dm is equal to 20, and Cs is equal to zero except for those pollutants identified in Table F-12.

Ammonia (expressed as nitrogen)

$$C_e = 600 + 20 (600 - 0) = 12,600 \mu\text{g/L (6-Month Median)}$$

$$C_e = 2,400 + 20 (2,400 - 0) = 50,400 \mu\text{g/L (Daily Maximum)}$$

$$C_e = 6,000 + 20 (6,000 - 0) = 126,000 \mu\text{g/L (Instantaneous Maximum)}$$

Cadmium

$$\begin{aligned} Ce &= 1 + 20 (1 - 0) = 21 \text{ } \mu\text{g/L (6-Month Median)} \\ Ce &= 4 + 20 (4 - 0) = 84 \text{ } \mu\text{g/L (Daily Maximum)} \\ Ce &= 10 + 20 (10 - 0) = 210 \text{ } \mu\text{g/L (Instantaneous Maximum)} \end{aligned}$$

Total Chlorine Residual

$$\begin{aligned} Ce &= 2 + 20 (2 - 0) = 42 \text{ } \mu\text{g/L (6-Month Median)} \\ Ce &= 8 + 20 (8 - 0) = 168 \text{ } \mu\text{g/L (Daily Maximum)} \\ Ce &= 60 + 20 (60 - 0) = 1,260 \text{ } \mu\text{g/L (Instantaneous Maximum)} \end{aligned}$$

Copper

$$\begin{aligned} Ce &= 3 + 20 (3 - 2) = 23 \text{ } \mu\text{g/L (6-Month Median)} \\ Ce &= 12 + 20 (12 - 2) = 212 \text{ } \mu\text{g/L (Daily Maximum)} \\ Ce &= 30 + 20 (30 - 2) = 590 \text{ } \mu\text{g/L (Instantaneous Maximum)} \end{aligned}$$

Nickel

$$\begin{aligned} Ce &= 5 + 20 (5 - 0) = 105 \text{ } \mu\text{g/L (6-Month Median)} \\ Ce &= 20 + 20 (20 - 0) = 420 \text{ } \mu\text{g/L (Daily Maximum)} \\ Ce &= 50 + 20 (50 - 0) = 1,050 \text{ } \mu\text{g/L (Instantaneous Maximum)} \end{aligned}$$

Zinc

$$\begin{aligned} Ce &= 20 + 20 (20 - 8) = 260 \text{ } \mu\text{g/L (6-Month Median)} \\ Ce &= 80 + 20 (80 - 8) = 1,520 \text{ } \mu\text{g/L (Daily Maximum)} \\ Ce &= 200 + 20 (200 - 8) = 4,040 \text{ } \mu\text{g/L (Instantaneous Maximum)} \end{aligned}$$

Phenolic Compounds (non-chlorinated)

$$\begin{aligned} Ce &= 30 + 20 (30 - 0) = 630 \text{ } \mu\text{g/L (6-Month Median)} \\ Ce &= 120 + 20 (120 - 0) = 2,520 \text{ } \mu\text{g/L (Daily Maximum)} \\ Ce &= 300 + 20 (300 - 0) = 6,300 \text{ } \mu\text{g/L (Instantaneous Maximum)} \end{aligned}$$

The Ocean Plan requires that effluent limitations for the Table B pollutants also be expressed in terms of mass emission rate utilizing the general formula:  $\text{lbs/day} = 0.00834 \times Ce \times Q$ , where  $Ce$  = the concentration based limit ( $\mu\text{g/L}$ ) and  $Q$  = the flow rate (MGD). The Order, therefore, establishes both concentration-based (expressed in units of  $\mu\text{g/L}$ ) and mass-based effluent limitations (expressed in  $\text{lbs/day}$ ) for ammonia, cadmium, total chlorine residual, copper, nickel, zinc, and nonchlorinated phenolic compounds.

**Table F-14. Final WQBELs for Ocean Plan Table B Pollutants**

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Ammonia Nitrogen, Total (as N)	mg/L	12.6	50.4	126
Cadmium, Total Recoverable	µg/L	21	84	210
Chlorine, Total Residual	µg/L	42	168	1,260
Copper, Total Recoverable	µg/L	23	212	590
Nickel, Total Recoverable	µg/L	105	420	1,050
Zinc, Total Recoverable	µg/L	260	1,520	4,040
Phenolic Compounds (non-chlorinated)	µg/L	630	2,520	6,300

## 5. Whole Effluent Toxicity (WET)

NPDES regulations at 40 CFR 122.44 (d) require that effluent limitations be established for pollutants, including whole effluent toxicity (WET), when a discharge has the reasonable potential to cause or contribute to an exceedance of a State water quality standard, including State narrative objectives for water quality. The previous permit required annual chronic WET monitoring. In the first year, the Discharger was required to use three test organisms - topsmelt (*Athenrinops affinis*), red abalone (*Haliotis rufescens*), and giant kelp (*Macrocystis pyrifera*). In subsequent years, the Discharger was only required to use the most sensitive organism (here, red abalone). The following table summarizes the results of WET monitoring performed on seafood processing wastewater during the term of the previous permit.

**Table F-15. Results of Chronic Aquatic Toxicity Results**

Date	Species	Test Endpoint	Result
June 16	Topsmelt	Survival	10 TUc
June 16	Red Abalone	Development	> 40 TUc
June 17	Giant Kelp	Germination	> 40 TUc
June 17	Giant Kelp	Germ Tube Length	20 TUc
January 7	Red Abalone	Development	4 TUc
January 14	Red Abalone	Development	> 40 TUc
January 3	Red Abalone	Development	> 40 TUc
January 12	Red Abalone	Development	40 TUc
January 3	Red Abalone	Development	20 TUc

The Ocean Plan establishes a water quality objective of 1.0 TUc as a daily maximum objective for chronic WET. After consideration of a minimum initial dilution factor of 20 ( $D_m = 20$ ), the adjusted water quality objective applicable to the receiving water for discharges from the Crescent City Harbor District's wastewater treatment facility is 21 TUc. Comparison of chronic WET monitoring results from the previous permit term with the adjusted water quality objective shows that, in seven of nine effluent samples, levels of chronic toxicity were equal to or greater than the adjusted water quality objective. In addition, the 95th percentile result was determined at 95 percent confidence and compared to the water quality objective of 1.0 TUc to determine reasonable potential. The calculated 95th percentile value was 12.8 TUc,

a value greater than the applicable water quality objective. The Regional Water Board has therefore determined that discharges from the Harbor District's wastewater treatment facility have the reasonable potential to cause or contribute to exceedances of applicable water quality standards established by the Ocean Plan, and this Order establishes effluent limitations for chronic WET.

Effluent limitations for chronic WET are derived using procedures established by the Ocean Plan and the following equation.

$$C_e = C_o + D_m (C_o - C_s)$$

Here,  $C_o = 1.0$  TUc,  $D_m = 20$ , and the daily maximum effluent limitation ( $C_e$ ) is determined to be 21 TUc. The Discharger is required to monitor chronic WET one time per year, and in certain circumstances of elevated toxicity, the Discharger is required to perform accelerated monitoring as described in section V of the MRP. After accelerated monitoring, if conditions of chronic toxicity are found to persist, the Discharger will be required to conduct a Toxicity Reduction Evaluation, as described in Special Provision VI.C.2.ii.

## **D. Final Effluent Limitations**

### **1. Satisfaction of Anti-Backsliding Requirements**

Except as described below, effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

Effluent limitations from the previous permit which applied to discharges from shrimp processing are not retained in this Order, because the Discharger declared in the facility's Report of Waste Discharge that shrimp processing wastes are no longer discharged. To ensure that shrimp processing wastes and pollutants are not discharged, a discharge prohibition has been established in this Order against the discharge of shrimp processing wastes and wastewater. Because the discharge prohibition is effectively more stringent than effluent limitations of the previous permit for shrimp processing activity, the elimination of those limitations is consistent with anti-backsliding provisions of the Clean Water Act and its implementing regulations.

Order No. R1-2004-0024 established effluent limitations for discharges of both seafood processing and pump maintenance wastewater for acrylonitrile, ammonia, antimony, benzene, bis (2-ethylhexyl) phthalate, cadmium, total chlorine residual, hexavalent chromium, copper, 1,1-dichloroethylene, lead, mercury, nickel, and zinc. Monitoring of the seafood processing effluent from 2004 through 2006 indicates that acrylonitrile, antimony, benzene, bis (2-ethylhexyl) phthalate, hexavalent chromium, 1,1-dichloroethylene, lead, and mercury do not exhibit a reasonable potential to cause or contribute to exceedances of water quality objectives established in the Ocean Plan. Effluent limitations for these parameters for discharges of seafood

processing wastewater have therefore not been retained in this Order. This relaxation of effluent limits (here, the elimination of limits) is consistent with the exception to the CWA's backsliding prohibition expressed at CWA 402(o)(2)(B)(i), where new information is available, which was not available at the time of permit issuance. In these circumstances, effluent monitoring data from the term of the previous permit is now available and indicates that there is no longer reasonable potential for these pollutants to cause or contribute to exceedances of applicable water quality objectives.

## **2. Satisfaction of Antidegradation Policy**

This Order is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater.

## **3. Stringency of Requirements for Individual Pollutants**

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on total suspended solids, oil and grease, pH, turbidity, and settleable solids. Restrictions on these pollutants are discussed in section IV.B of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These limitations are not more stringent than required by the CWA.

**E. Interim Effluent Limitations** *(Not Applicable)*

**F. Land Discharge Specifications** *(Not Applicable)*

**G. Reclamation Specifications** *(Not Applicable)*

## **V. RATIONALE FOR RECEIVING WATER LIMITATIONS**

### **A. Surface Water**

1. CWA section 303(a-c) requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The State Water Board adopted water quality criteria as water quality objectives in the Ocean Plan. The Ocean Plan includes numeric and narrative water quality objectives for various beneficial uses. This Order contains receiving surface water limitations based on the Ocean Plan numerical and narrative water quality objectives for dissolved oxygen, floating particulates, oil and grease, pH, discoloration, natural lighting, deposition of solids, dissolved sulfides, organic materials, and nutrient materials.



**B. Groundwater** *(Not Applicable)*

**VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS**

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

**A. Influent Monitoring** *(Not Applicable)*

**B. Effluent Monitoring**

Pursuant to the requirements of 40 CFR 122.44(i)(2), effluent monitoring is required for all constituents with effluent limitations. In addition, routine monitoring of the effluent and the receiving water for priority pollutants is required to periodically assess the reasonable potential of the discharge to cause or contribute to an exceedance of water quality objectives in the Ocean Plan.

Order No. R1-2004-0024 established monitoring requirements which were applicable to discharges from Discharge Point No. 001, regardless of whether the discharges were from seafood processing or pump maintenance. This Order establishes separate monitoring requirements for discharges of seafood processing wastewaters (Monitoring Location EFF-001A) and pump maintenance wastewaters (Monitoring Location EFF-001B). Most effluent monitoring requirements have been retained from the previous permit, and are established at both monitoring locations, except for the following changes:

*Seafood Processing Wastewater – EFF-001A*

- Order No. R1-2004-0024 required 24-hour composite samples for total suspended solids, oil and grease, and Ocean Plan Table B constituents of concern. The Discharger currently collects time-weighted composite samples using an automatic sampler with a sampling interval of less than 1 hour over a 24-hour period. The Discharger, however, does not typically discharge continuously over a 24-hour period. The effluent pumps are shut off in the evening, and the valve on the piping to the effluent sump is closed to prevent inadvertent discharges or overfilling of the effluent sump. The automatic sampler continues to collect periodic samples from the wastewater sitting in the effluent sump over the course of the night when there is no actual discharge. Therefore, aliquots collected when there is no discharge are weighted equally with aliquots

collected during actual discharge periods. As a result, the composite samples do not represent an average of the discharge for that day, but are more influenced by the composition of the wastewater in the sump at the end of the day.

Because 24-hour composite samples are not necessarily representative of the effluent discharged from the Facility, the Discharger has requested that the sample types be revised. Therefore, the sample type for total suspended solids, oil and grease, and Ocean Plan Table B constituents of concern has been revised from a 24-hour composite to a composite composed of aliquots collected with a sampling interval of approximately 1 hour during the period of discharge.

- This Order requires the Discharger to calculate and report the results of monitoring in lbs/1,000 lbs of seafood processed to compare with the applicable effluent limitations. Example calculations for effluent limitations and reporting requirements are included in Attachment H.
- Annual routine monitoring requirements for acrylonitrile, benzene, bis (2-ethylhexyl) phthalate, and 1,1-dichloroethylene have not been retained because these pollutants no longer demonstrate reasonable potential.
- Annual routine monitoring of the Ocean Plan Table B metals has been established by the MRP to determine compliance with effluent limitations for cadmium, copper, nickel, and zinc, and to characterize the effluent. The Ocean Plan requires at least one complete scan during the permit term for discharges less than 1 MGD, and therefore monitoring for the remaining Table B constituents is required once during the third year of the permit term.
- Annual routine monitoring has been established by the MRP to determine compliance with newly established effluent limitations for non-chlorinated phenolic compounds.

#### *Pump Maintenance - EFF-001B*

- Consistent with the requirements for Monitoring Location EFF-001A, the sample type for total suspended solids, oil and grease has been revised from a 24-hour composite to a composite composed of aliquots collected with a sampling interval of approximately 1 hour during the period of discharge.
- Effluent limitations for acrylonitrile, ammonia, antimony, benzene, bis (2-ethylhexyl) phthalate, cadmium, chlorine, hexavalent chromium, copper, 1,1-dichloroethylene, lead, mercury, nickel, and zinc for discharges of pump maintenance wastewater at EFF-001B have not been retained in this Order, and therefore routine monitoring requirements for these pollutants at this monitoring location have not been retained.

- Monitoring data from the period of the previous permit term for Ocean Plan Table A and B parameters in discharges of pump maintenance wastewater was not available. Appendix III of the Ocean Plan specifies that the Regional Water Board shall require periodic monitoring for the substances in Table B. For discharges less than 1 MGD, the Ocean Plan requires that at least one complete scan of the Table B constituents during the permit term. Monitoring for the Table B constituents is therefore required once during the third year of the permit term at EFF-001B.

### **C. Whole Effluent Toxicity Testing Requirements**

Monitoring requirements for chronic toxicity are established for discharge Monitoring Locations EFF-001A and EFF-001B. The toxicity monitoring requirements are included in the MRP in accordance with the 2005 Ocean Plan. The dilution series required by the Monitoring and Reporting Program is bracketed based on the available 20:1 dilution (i.e., 5 percent effluent), consistent with the guidance contained USEPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to West Coast Marine and Estuarine Organisms.

### **D. Receiving Water Monitoring**

1. **Surface Water.** Receiving water monitoring is required to demonstrate compliance with the receiving water limitations. Receiving waters shall be monitored for pH and dissolved oxygen at Preston Island outside the zone of dilution (RSW-001). Background samples for pH and dissolved oxygen shall be collected from a Lighthouse Island location immediately outside the zone of initial dilution of the discharge (RSW-002). These receiving water samples may be coordinated with monitoring by the City of Crescent City.
2. **Groundwater.** *(Not Applicable)*

### **E. Other Monitoring Requirements**

1. **Production Reporting Requirements.** In order to calculate, and determine compliance with, effluent limitations for total suspended solids and oil and grease from discharges from seafood processing, this Order requires the amount, in pounds, of Dungeness and tanner crab, bottom fish, and total seafood processed to be recorded daily.

## **VII. RATIONALE FOR PROVISIONS**

### **A. Standard Provisions**

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all

standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

## **B. Regional Water Board Standard Provisions**

In addition to the Federal Standard Provisions (Attachment D), the Discharger shall comply with the Regional Water Board Standard Provisions provided in Standard Provisions VI.A.2.

1. Order Provision VI.A.2.a identifies the State's enforcement authority under the Water Code, which is more stringent than the enforcement authority specified in the federal regulations [e.g. 40 CFR sections 122.41(j)(5) and (k)(2)].
2. Order Provision VI.A.2.b requires the Discharger to notify Regional Water Board staff, orally and in writing, in the event that the Discharger does not comply or will be unable to comply with any Order requirement. This provision requires the Discharger to make direct contact with a Regional Water Board staff person.
3. Order Provision VI.A.2.c requires the Discharger to provide written certification that it has notified the State Office of Emergency Services and the local health officer or directors of environmental health within 24 hours after becoming aware of a discharge to a drainage channel or a surface water. The Discharge is also required to provide written documentation of the circumstances of the spill event within five (5) days, unless the Regional Water Board waives the confirmation.

## **C. Special Provisions**

### **1. Reopener Provisions**

- a. **Standards Revisions (Special Provisions VI.C.1.a).** Conditions that necessitate a major modification of a permit are described in 40 CFR section 122.62, which include the following:
  - i. When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are

promulgated or approved pursuant to Section 303 of the CWA or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such revised standards.

- ii. When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance.
- b. **Reasonable Potential (Special Provisions VI.C.1.b).** This provision allows the Regional Water Board to modify, or revoke and reissue, this Order if present or future investigations demonstrate that the Discharger governed by this Permit is causing or contributing to excursions above any applicable priority pollutant criterion or objective or adversely impacting water quality and/or the beneficial uses of receiving waters.

## 2. Special Studies and Additional Monitoring Requirements

- a. **Toxicity Reduction Requirements (Special Provision VI. C. 2. a).** In addition to routine toxicity monitoring, Special Provision VI. C. 2. b requires the Discharger to submit to the Regional Water Board an Initial Investigative TRE Work Plan within 180 days of the effective date of this Order for approval by the Executive Officer, to ensure the Discharger has a plan to immediately move forward with the initial tiers of a TRE, in the event effluent toxicity is encountered. The TRE is initiated by evidence of a pattern of toxicity demonstrated through the additional effluent monitoring provided as a result of an accelerated monitoring program.

TRE Guidance. The Discharger is required to prepare a TRE Work Plan in accordance with appropriate USEPA guidance. Numerous guidance documents are available, as identified below.

- i. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, (EPA/833B-99/002), August 1999.
- ii. Generalized Methodology for Conducting Industrial TREs, (EPA/600/2-88/070), April 1989.
- iii. Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures, Second Edition, EPA 600/6-91/005F, February 1991.
- iv. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, EPA 600/6-91/005F, May 1992.
- v. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting acute and Chronic Toxicity, Second Edition, EPA 600/R-92/080, September 1993.

- vi. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity, Second Edition, EPA 600/R-92/081, September 1993.
- vii. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012, October 2002.
- viii. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA-821-R-02-013, October 2002.
- ix. Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991.

### **3. Best Management Practices and Pollution Prevention**

- a. **Pollution Minimization Program (Special Provision VI.C.2.a).** Provision VI.C.3.a is included in this Order pursuant to section III.C.9 of the Ocean Plan. A Pollutant Minimization Program is required when there is evidence that a toxic pollutant is present in effluent at a concentration greater than an applicable effluent limitation.
- b. **Best Management Practices (BMP) Plan.** In addition to numerical effluent limitations, BMPs are required to control or abate the discharge of pollutants in accordance with 40 CFR 122.44(k). This Order requires the development and implementation of a BMP Plan which prevents or minimizes the generation of pollutants, their release, and potential release from the Facility to waters of the United States through normal operations and ancillary activities, including material storage areas, storm water, loading or unloading operations, or spillage or leaks. This Order requires that the BMP Plan be developed and implemented in accordance with Attachment G within 1 year of the effective date of the Order.

### **4. Construction, Operation, and Maintenance Specifications** *(Not Applicable)*

### **5. Special Provisions for Municipal Facilities (POTWs Only)** *(Not Applicable)*

### **6. Other Special Provisions** *(Not Applicable)*

### **7. Compliance Schedules** *(Not Applicable)*

## **VIII. PUBLIC PARTICIPATION**

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for Crescent City

Harbor District, Crescent City Harbor Seafood Wastewater System. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

#### **A. Notification of Interested Parties**

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through Del Norte Triplicate on May 4, 2009 and through posting on the Regional Water Board's Internet site at [http://www.waterboards.ca.gov/northcoast/board\\_decisions/tentative\\_orders/](http://www.waterboards.ca.gov/northcoast/board_decisions/tentative_orders/) beginning on May 4, 2009.

#### **B. Written Comments**

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on **<DATE>**.

#### **C. Public Hearing**

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **July 23, 2009**  
Time: **8:30 AM, or as soon as possible thereafter as noticed in the final agenda**  
Location: **Regional Water Board Office  
5550 Skylane Blvd., Suite A  
Santa Rosa, CA 95403**

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is <http://www.waterboards.ca.gov/northcoast/> where you can access the current agenda for changes in dates and locations.

#### **D. Waste Discharge Requirements Petitions**

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board  
Office of Chief Counsel  
P.O. Box 100, 1001 I Street  
Sacramento, CA 95812-0100

#### **E. Information and Copying**

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (707) 576-2220.

#### **F. Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this Facility, and provide a name, address, and phone number.

#### **G. Additional Information**

Requests for additional information or questions regarding this order should be directed to Charles Reed at (707) 576-2752.



## **ATTACHMENT G – BEST MANAGEMENT PRACTICES PLAN REQUIREMENTS**

### **I. Implementation**

The Discharger shall develop and implement a Best Management Practices (BMP) Plan which achieves the objectives and the specific requirements listed below. A copy of the BMP Plan shall be submitted to the Regional Water Board. The BMP Plan shall be implemented as soon as possible but no later than 1 year from the effective date of this Order.

### **II. Purpose**

Through implementation of the BMP Plan, the Discharger shall prevent or minimize the generation and discharge of wastes and pollutants from the Facility to waters of the United States. Pollution shall be prevented or reduced at the source or recycled in an environmentally safe manner whenever feasible. Disposal of wastes into the environment shall be conducted in such a way as to have a minimal environmental impact.

### **III. Objectives**

The Discharger shall develop and amend the BMP Plan consistent with the following objectives for the control of pollutants:

- A. The number and quantity of wastes and pollutants shall be minimized by the Discharger to the extent feasible by managing each waste stream in the most appropriate manner.
- B. Under the BMP Plan, and any Standard Operating Procedures (SOPs) included in the BMP Plan, the Discharger shall ensure proper operation and maintenance of the Facility.
- C. The Discharger shall establish specific objectives for the control of pollutants by conducting the following evaluations:
  - 1. Examination of each facility component or system for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to receiving waters due to the failure or improper operation of equipment.
  - 2. Examination of all normal operations, including raw material and product storage areas, in-plant conveyance of product, processing and product handling areas, loading or unloading operations, wastewater treatment areas, sludge and waste disposal areas, and refueling areas.
  - 3. Examination of all facility equipment for potential failure and any resulting overflow of wastes and pollutants to receiving waters, including storm water; provision shall be made for emergency measures to be taken in such an event.

4. Examination of emergency release provision (e.g., discharges of ammonia or chlorine).

#### IV. Requirements

The BMP Plan shall be consistent with the objectives in Part 3 above and the general guidance contained in the publication entitled *Guidance Manual for Developing Best Management Practices (BMPs)* (USEPA, 1993) or any subsequent revisions and *Seafood Processing Handbook for Materials Accounting Audits and Best Management Practices Plans*, EPA and Bottomline Performance, 1995. The BMP Plan shall:

- A. Be documented in narrative form, shall include any necessary plot plans, drawings or maps, and shall be developed in accordance with good engineering practices. The BMP Plan shall be organized and written with the following structure:

1. Name and location of the activity.
2. Statement of BMP policy.

The policy statement provides two major functions: (1) it demonstrates and reinforces management support of the BMP Plan; and (2) it describes the intent and goals of the BMP Plan.

3. Materials accounting of the inputs, processes, and outputs of the Facility.

Materials accounting is used to trace the inflow and outflow of components in a process stream and to establish quantities of these components.

$$\text{Inflow} = \text{Outflow} + \text{Accumulation}$$

Example 1: For the entire plant

- Inflow = seafood catch, fresh water, salt water, cleaning chemicals, processing additives, boiler or cook water
- Accumulation = product
- Outflow = inflow minus product

Example 2: Process step of head-and-gut

- Inflow = whole seafood, cleaning water
- Accumulation = headed and gutted seafood (to next process step)
- Outflow = heads, guts, blood, slime, scales, trimmings, unusable seafood, water

As can be seen from the above examples, the flows can be broken down into components. Identifying and measuring the key components for a process is the basis for doing materials accounting audits.

4. Risk identification and assessment of pollutant discharges.
  - a. Review existing materials and plans, as a source of information, to ensure consistency and to eliminate duplication.
  - b. Characterize actual and potential pollutant sources that might be subject to release.
  - c. Evaluate potential pollutants based on the hazards they present to human health and the environment.
  - d. Identify pathways through which pollutants identified at the site might reach environmental and human receptors.
  - e. Prioritize potential releases.
5. Specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to, the following:
  - a. Modification of equipment, facilities, technology, processes, and procedures,
  - b. Reformulation or redesign of products,
  - c. Substitution of materials,
  - d. Improvement in management, inventory control, materials handling or general operational phases of the Facility, and
  - e. Reduction or elimination of any discharge of wastes that have the potential to collect and foul set or drift nets used in subsistence or commercial fisheries in nearby traditional use areas.
6. Good housekeeping.

Good housekeeping is the maintenance of a clean, orderly work environment. Maintaining an orderly facility means that materials and equipment are neat and well-kept to prevent releases to the environment.
7. Preventative maintenance.

Preventative maintenance is periodically inspecting, maintaining, and testing plant equipment and systems to uncover conditions that can cause breakdowns or failures. Preventative maintenance focuses on preventing environmental releases.
8. Inspections and records.

- a. Inspections provide an ongoing method to detect and identify sources of actual or potential releases. Inspections are effective in evaluating the good housekeeping and preventative maintenance programs.
- b. Recordkeeping focuses on maintaining records that are pertinent to actual or potential environmental releases. These records may include the BMP Plan itself, inspection reports, preventative maintenance records, and employee training materials.

9. Employee training.

Employee training is a method used to instill in personnel, at all levels of responsibility, a complete understanding of the BMP Plan, including the reasons for developing the plan, the positive impacts of the plan, and employee and managerial responsibilities under the BMP Plan.

B. The BMP Plan shall include the following provisions concerning its review:

1. Be reviewed by the facility manager and appropriate staff.
2. Include a statement that the above review has been completed and that the BMP Plan fulfills the requirements set forth in this Order. The statement shall be certified by the dated signature of the facility manager.

## **V. Documentation**

The Discharger shall maintain a copy of the BMP Plan at the Facility and shall make it available to the Regional Water Board upon request. All offices of the Discharger which are required to maintain a copy of the NPDES permit shall also maintain a copy of the BMP Plan.

## **VI. BMP Plan Modification**

The Discharger shall amend the BMP Plan whenever there is a change in the facility or in the operation of the facility which materially increases the generation of pollutants or their release or potential release to the receiving waters. The Discharger shall also amend the BMP Plan, as appropriate, when operations covered by the BMP Plan change. Any such changes to the BMP Plan shall be consistent with the objectives and specific requirements listed above. All changes in the BMP Plan shall be reviewed by the facility manager.

## **VII. Modification for Ineffectiveness**

At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or the specific requirements above, the Order and/or the BMP Plan shall be subject to modification to incorporate revised BMP requirements.

## ATTACHMENT H – EXAMPLE CALCULATIONS

This Order establishes effluent limitations for total suspended solids (TSS) and oil and grease for discharges from seafood processing based on the requirements contained in 40 CFR Part 408. The effluent limitations required by 40 CFR Part 408 are established as pounds of pollutant per thousand pounds of seafood processed. This Order establishes floating effluent limitations, in lieu of fixed effluent limitations, to account for the significant variability in the quantity and type of seafood processed at the plants discharging into the Facility. The calculation of the effluent limitations and monitoring results is complex. Therefore, the following paragraphs present sample calculations of effluent limitations and monitoring results for TSS given the sample data set in Table H-1. The calculations of effluent limitations and monitoring results for oil and grease follow the same procedures.

**Table H-1. Monitoring Data**

Date	Production			Flow MGD	TSS mg/L
	Dungeness and Tanner Crab	Bottom Fish	Total Seafood		
	lbs	lbs	lbs		
April 8	0	32,253	32,253	0.01668	269
April 14	6,370	35,182	41,552	0.030024	116
April 20	8,081	42,604	50,685	0.046704	100
April 26	7,659	54,127	61,786	0.040032	154
Total	22,110	164,166	186,276	--	--

### Calculation of Maximum Daily Effluent Limitation (MDEL) for TSS

The MDEL for TSS contained in section IV.A.1 of the Order is as follows:

$$\left[ \left( 8.1 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs crab processed during day}}{\text{lbs seafood processed during day}} \right) + \left( 3.6 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs bottomfish processed during day}}{\text{lbs seafood processed during day}} \right) \right]$$

Using the production data given in Table H-1 for April 14, the MDEL would be calculated as follows:

$$\text{TSS MDEL} = \left[ \left( 8.1 \text{ lbs} / 1,000 \text{ lbs} \times \frac{6,370 \text{ lbs crab processed during day}}{41,552 \text{ lbs seafood processed during day}} \right) + \left( 3.6 \text{ lbs} / 1,000 \text{ lbs} \times \frac{35,182 \text{ lbs bottomfish processed during day}}{41,552 \text{ lbs seafood processed during day}} \right) \right] = 4.29 \text{ lbs} / 1,000 \text{ lbs of seafood processed}$$

### **Calculation of Average Monthly Effluent Limitation (AMEL) for TSS**

The AMEL for TSS contained in section IV.A.1 of the Order is as follows:

$$\left[ \left( 2.7 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs crab processed during month}}{\text{lbs seafood processed during month}} \right) + \left( 2 \text{ lbs} / 1,000 \text{ lbs} \times \frac{\text{lbs bottomfish processed during month}}{\text{lbs seafood processed during month}} \right) \right]$$

Using the production data given in Table H-1 for the month of April, the AMEL would be calculated as follows:

$$\text{TSS AMEL} = \left[ \left( 2.7 \text{ lbs} / 1,000 \text{ lbs} \times \frac{22,110 \text{ lbs crab processed during month}}{186,276 \text{ lbs seafood processed during month}} \right) + \left( 2 \text{ lbs} / 1,000 \text{ lbs} \times \frac{164,166 \text{ lbs bottomfish processed during month}}{186,276 \text{ lbs seafood processed during month}} \right) \right] = 2.08 \text{ lbs} / 1,000 \text{ lbs of seafood processed}$$

### **Calculation of Daily Mass Emission Rate Results for TSS**

The Monitoring and Reporting Program requires the Discharger to report the daily mass emission rates results for TSS to determine compliance with effluent limitations. Daily mass emission rate results shall be calculated according to the formula:

$$\frac{(y \text{ lbs} / \text{day})}{\left( \frac{z \text{ lbs seafood processed}}{1,000} \right)}$$

Where:

y = the total mass loading of TSS = TSS concentration (mg/L) x 8.34 x flow rate (MGD)

z = the total seafood production

Using the production data given in Table H-1 for April 14, the daily mass emission rate result would be calculated as follows:

$$\text{TSS Mass Emission Rate} = \frac{(29 \text{ lbs} / \text{day})}{\left( \frac{41,552 \text{ lbs seafood processed}}{1,000} \right)} = 0.70 \text{ lbs} / 1,000 \text{ lbs of seafood processed}$$

Where:

y = 116 mg/L x 8.34 x 0.030024 MGD = 29 lbs/day

z = 41,552 lbs

Using the production data given in Table H-1, the daily mass emission rate results for each day are as follows:

**Table H-2. Calculation of Daily Mass Emission Rates**

Date	TSS	Seafood Production	Daily Mass Emission Rate
	lbs/day	lbs	lbs/1,000 lbs seafood processed
April 8	37	32,253	1.16
April 14	29	41,552	0.70
April 20	39	50,685	0.77
April 26	51	61,786	0.83

**Calculation of Average Monthly Mass Emission Rate Results for TSS**

The Monitoring and Reporting Program also requires the Discharger to report the average monthly mass emission rates results for TSS to determine compliance with effluent limitations. Average monthly mass emission rate results shall be calculated according to the formula:

$$\frac{\sum (y \text{ lbs / day})}{\frac{\sum (z \text{ lbs of seafood processed})}{1,000}}$$

Where:

$\sum (y \text{ lbs / day})$  = the total mass loading of TSS during the month

$\sum (z \text{ lbs of seafood processed})$  = the total seafood production during the month

Using the mass loading data and production data presented in Table H-2 for the month of April, the average monthly mass emission rate result would be calculated as follows:

$$\text{TSS Average Monthly Mass Emission Rate} = \frac{(37 + 29 + 39 + 51) \text{ lbs / day}}{\frac{(32,253 + 41,552 + 50,685 + 61,786) \text{ lbs of seafood processed}}{1,000}} = 0.84 \text{ lbs / 1,000 lbs of seafood processed}$$